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STANDING COMMITTEE ON PETROLEUM & NATURAL GAS (2010-11)

FIFTEENTH LOK SABHA

MINISTRY OF PETROLEUM & NATURAL GAS

OIL REFINERIES – A CRITIQUE

[Action Taken by the Government on the recommendations contained in the Twenty-Third Report (Fourteenth Lok Sabha) of the Standing Committee on Petroleum and Natural Gas (2008-09) on 'Oil Refineries – A Critique']

SIXTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

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Presented to Lok Sabha on 16.11.2010
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INTRODUCTION

I, the Chairman, Standing Committee on Petroleum & Natural Gas having been authorised by the Committee to submit the Report on their behalf, present this Sixth Report on Action Taken by the Government on the recommendations contained in the Twenty-Third Report (Fourteenth Lok Sabha) of the Standing Committee on Petroleum & Natural Gas on 'Oil Refineries – A Critique'.

2. The Twenty-Third Report of the Standing Committee on Petroleum & Natural Gas was presented to Lok Sabha on 18 December, 2008. The updated Action Taken Replies of the Government to the recommendations contained in the Twenty-Third Report were received on 23 March, 2010.

3. The Standing Committee on Petroleum & Natural Gas (2010-11) considered and adopted the Report at their sitting held on 09.11.2010.

4. An analysis of the action taken by the Government on the recommendations contained in the Twenty-Third Report (Fourteenth Lok Sabha) of the Standing Committee on Petroleum & Natural Gas is given at Annexure-II.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

New Delhi;
15 November, 2010
24 Kartika, 1932 (Saka)

V. ARUNA KUMAR,
Chairman,
Standing Committee on
Petroleum & Natural Gas.

CHAPTER I

REPORT

This Report of the Standing Committee on Petroleum & Natural Gas deals with the action taken by the Government on the Recommendations contained in the Twenty-Third Report (Fourteenth Lok Sabha) of the Standing Committee on Petroleum & Natural Gas (2008-2009) on 'Oil Refineries – A Critique', which was presented to Lok Sabha on 18.12.2008.

2. Action Taken Notes have been received from the Government in respect of all the 20 Recommendations /Observations contained in the Report. These have been categorised as follows:-

(i) Recommendations/Observations that have been accepted by the Government:- SI.Nos. 1, 2, 4, 5, 10, 11, 12, 15 and 16

(ii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies:- 7, 8, 13, 14 and 17

(iii) Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee:- SI.Nos. 6 and 20.

(iv) Recommendations/Observations in respect of which final replies of the Government are still awaited:- SI.Nos. 3, 9, 18 and 19.

3. The Committee desire that the Action Taken Notes on the Recommendations/Observations contained in Chapter-I of this Report and Final Replies in respect of the recommendations for which interim replies have been furnished by the Government (included in Chapter-V), should be furnished expeditiously.

4. The Committee will now deal with the action taken by the Government on some of their recommendations.

Recommendation Sl. No. 6 (Para No. 5.6)

100% Excise Duty concession to North East Refineries

5. The North-East Refineries were having uneconomic operations due to a number of factors like limited demand, limited crude availability, sub-economic size, locational disadvantage, etc. The Committee had been informed that to support their operations, the Government had taken some pro-active measures like supply of Ravva crude to BRPL, excise duty concessions to these Refineries, etc. However, these efforts had not proved enough to enable the North-East Refineries to overcome the problem of lower capacity utilization. In the opinion of the Committee, the capacity utilization of these refineries can go up if crude oil production in the region is enhanced. The Committee, therefore, desired ONGC and OIL to redouble their efforts in enhancing the crude production in the North-East. The Committee also desired that in order to improve the economic viability of the North-East Refineries, the supply of Ravva crude to BRPL should be increased from the present level of 1.5 MMTPA to 2.5 MMTPA until the commissioning of the Diesel Hydro Treating (DHT) facilities in the refinery. The Committee further recommended that 100% excise duty concession should be granted to these Refineries instead of the existing 50% until the time these Refineries become profitable.

Further, the Committee had been informed that there would be an overall increase of Rs.239 crore in GRM for NE refineries in the post-DHT scenario with 100% capacity utilization. The Committee recommended that the Government should enhance the capacity of BRPL to further add to the profitability, provided it is economically viable to export the surplus petroleum products generated from the refinery through Haldia and other ports.

The Committee had further been informed that a joint study by PPAC, CHT and oil companies is in progress for optimization of capacity utilization of North-East Refineries. The Committee desired that the said study should be completed in a time bound manner and its recommendations should be scrupulously implemented.

6. In their Action Taken Reply, the Ministry of Petroleum & Natural Gas has submitted as below:-

ONGC has reported that the crude oil production from Ravva field is presently around 30200 BOPD and cumulative oil production for the financial year 2009-10 is expected to be of the order 1.61 MMT of an average rate of 33000 BOPD. For the year 2010-11, crude oil production from Ravva is projected to be around 1.44 MMT at an average oil rate of 29500 BOPD. The entire estimated crude production has been nominated to IOCL (Bongaigaon) Refinery.

In order to enhance crude production from the ageing Ravva field, JV is planning to drill 5 additional wells in the year 2010-11. Simultaneously, JV is also in the process of acquiring 4 D seismic survey for identification of leftover/ undrained oil. On the basis of Seismic survey, further infill drilling plan will be drawn.

OIL is maintaining the increasing trend in crude oil production, which is anticipated to be about 3.57 MMT during 2009-10.

Initially, Numaligarh Refinery (also known as the 'Assam Accord' Refinery) was granted 100% Excise Duty exemption, as part of the North East Industrial Policy. The other three refineries of North East were getting only 50% Excise Duty relief. However, this special benefit to NRL was withdrawn in March 2002 and since then, the four refineries in the North-East have been getting the benefit of only 50% relief in Excise Duty. The issue of restoration of 100% Excise Duty concession to NRL was taken up in the 2002 by the then Minister (P&NG) with the then Finance Minister and Prime Minister.

The matter was reviewed in MoP&NG in July 2004 and with the approval of the then Minister (P&NG), it was decided that in view of the improved performance of Assam refineries, including NRL, the issue of restoration of 100% Excise Duty exemption to NRL need not be pursued further with the Ministry of Finance. On this basis, the then Minister (P&NG) had also sent a reply to the Working Chairman of the North East MPs' Forum. Since then, the 50% Excise Duty concession to the North East Refineries, including NRL, has been continued.

The Budget proposals presented in the Lok Sabha on 26.02.2010 have further extended the 50% Excise Duty concession for the North East refineries for 2010-11.

The Committee on 'Optimization of Capacity Utilization of North-East Refineries' has submitted its report in July 2008. The main observations/ recommendations of the Committee are as follows:

a) Processing of imported crude oil by BRPL refinery would result in loss due to high landed cost of imported crude oil.

b) Existence of limited demand of petroleum products in the North-East (NE) region and the additional cost involved in movement of products outside the region pose serious constraints against fuller utilization of capacity of the NE refineries.

c) Stable growth in crude oil production in the NE holds the key to the optimisation of capacity utilization of NE refineries. ONGC and OIL should work out Action Plan to augment crude oil production in NE region.

d) The Government of Assam is levying entry tax on crude oil, which is a major factor in escalating the cost of crude oil which in turn affects the profitability of NE refineries. The matter may be taken up with Assam Government for abolition of the entry tax.

7. Keeping in view the uneconomic operations of North East Refineries due to various factors like limited demand, limited crude availability, locational disadvantages etc, the Committee had inter-alia recommended that these Refineries should be given 100% excise duty exemption instead of 50% exemption until these Refineries became profitable. The Committee note that the Action Taken Reply of the Ministry on this specific recommendation is not only vague but quite evasive because it perfunctorily explained the decision taken by the Government way back in the year 2002 when 100% excise duty exemption available to Numaligarh Refinery Ltd. was withdrawn and subsequent two reviews made in the year

2002 and 2004 – one for restoration of the 100% excise duty exemption to Numaligarh Refinery and the second one not to pursue the same with the Ministry of Finance in view of the improved performance of the Assam Refineries.

8. The Committee note with concern that the reply of the Ministry did not touch upon the specific steps taken or reviews made, if any, on this particular recommendation after presentation of the Report of this Committee in December, 2008 and the valid reasons, if any, arising out of such a review, for not accepting the recommendation of the Committee for granting 100% excise duty exemption not only to Numaligarh Refinery but also to other refineries in the North East region. In the opinion of the Committee, the other factors which justify 100% excise duty exemption particularly in the case of Numaligarh Refinery are that the Numaligarh Refinery Ltd. is not only an Assam Accord Refinery but is also incurring losses in its retail marketing business since it is not covered under Retail Under-Recovery Compensation Scheme applicable to the PSU Oil Marketing Companies namely IOCL, HPCL & BPCL and the under-recovery suffered by NRL on retail marketing of Petrol and Diesel is borne by the company. The Committee therefore strongly deplore the non chalant approach of the Ministry in giving a vague and evasive reply in the matter and reiterate their recommendation to grant 100% excise duty concession to all the refineries in the North East region till they become profitable.

Integrated Refinery Business Improvement Programme

Recommendation Sl. No. 18 (Para No.5.18)

9. The Operational Benchmarking of our refineries was carried out through an international agency viz. M/s Shell Global Solutions International, Netherlands in respect of the years 2003-04 and 2004-05. The Committee were informed that a significant gap of 400 million US $ in Energy and Asset Management areas had been identified in the various refineries and that in order to bridge this gap, an Integrated Refinery Business Improvement Programme was introduced from January 2007 at four refineries viz. BPCL-Kochi, IOCL-Mathura, CPCL-Manali and HPCL-Vishakhapatnam. They were further informed that a number of projects

had been implemented in these refineries with a combined return potential of 75 million US dollars per year. The Committee had desired to know the actual return achieved so far as a result of implementation of these projects. They also recommended that these projects should also be introduced in other potential refineries of the country in order to improve their bottomlines.

10. In response, the Ministry of Petroleum & Natural Gas has submitted as below:-

"IOCL

Total projected benefits from the identified Proposals for Implementation (PFIs) is US$ 16.4 million, i.e. Rs.73.2 crore per annum on recurring basis (1USD=Rs 44.68). Till January 2010, 7 nos. of PFIs have been implemented and the balance 9 nos. of PFIs have been dropped with mutual agreement as those are found not economically viable. The actual benefits from these 7 PFIs work out to be US$ 6.32 million, i.e. Rs.28.2 crore/annum on recurring basis. The summary status of various recommendations is as under:

Sl. No.	Attribute	Value
1.	PFIs identified for implementation (nos.)	16
2.	Estimated benefit (Million US$ / year)	16.4
3.	PFIs implemented (nos.)	7
4.	Benefits achieved (Million US$/ year)	6.32
5.	PFIs dropped (nos.)	9

CPCL

CPCL-Manali had taken up 12 Proposals for implementation. Out of this, 8 proposals have been implemented with net benefit value of US$4.697 million per year. The remaining 4 proposals with an estimated value of US$11.047 million are under implementation and scheduled for completion by November 2010.

HPCL

M/s Shell Global had carried out the Vishakhapatnam Refinery performance review in three major areas, Margins, Energy and Reliability. After the initial discussion, more than 550 ideas were generated for improving the Refinery performance. However, after assessing of each proposal during assessment phase, 23 PFIs were finalized.

The approved PFIs, after successful implementation, are expected to give the benefits of approx. US$ 35.56 million, which is about 51.53 cents per barrel with Capex involved of US$ 1.989 million.

Out of 23 approved PFIs, 14 PFIs have been implemented and accruing the benefits of US$ 14.52 million / year (21.01 cents/ bbl). The remaining approved PFIs are under various implementation stages.

BPCL

BPCL-Kochi Refinery was selected as one of the four refineries to undergo the IRBIP by CHT and M/s. Shell Global Solutions. Out of 20 Proposals for Improvement (PFI's), having a net benefit value of US$ 19 million per annum (Rs.86.2 crore per annum @ Rs.45.4/US$), accepted for implementation, 17 PFI's with a net benefit value of US$ 18.43 million per annum have been implemented. Of these, 7 proposals with a net benefit value of US$ 3.44 million per annum (Rs.15.6 crore per annum) have been audited and closed. Out of the balance 13 proposals, implementation of 10 proposals have been completed and are being audited for closure. Recommendation is awaited from M/s. Shell GSI for one proposal and 2 proposals with a net benefit value of US$ 1.17 million per annum have been dropped due to technical / economic / safety reasons.

11. The Committee note that based on the Operational Benchmarking of refineries carried out through an international agency viz. M/s Shell Global Solutions International, Netherlands in respect of the years 2003-04 and 2004-05, a number of projects are being implemented in four refineries viz. BPCL-Kochi, IOCL-Mathura, CPCL-Manali and HPCL-Visakhapatnam with a combined return potential of 75 million US dollars per year. The Ministry of Petroleum and Natural Gas have further informed that total projected benefits from the identified Proposals for Implementation (PFIs) by IOCL were US$ 16.4 million, i.e. Rs.73.2 crore per annum on recurring basis (1USD=Rs 44.68). The Committee are, however, dismayed to note that the actual benefits from 7 PFIs implemented so far works out to be only US$ 6.32 million, i.e. Rs.28.2 crore/annum on recurring basis. Similarly, Out of 23 approved PFIs of HPCL, 14 PFIs have been implemented and accruing benefits achieved are of US$ 14.52 million / year (21.01 cents/ bbl) against the expected benefits of approx. US$ 35.56 million. As regards 20 BPCL Proposals for Implementation (PFI's), having a net benefit value of US$ 19 million per annum (Rs.86.2 crore per annum @ Rs.45.4/US$), accepted for implementation, 17 PFI's with a net benefit value of US$ 18.43 million per annum have been implemented. Taking note of the poor achievements in respect of projected return potential and delay in implementation of Proposal for Implementation (PFI), particularly by IOCL and HPCL, the Committee strongly urge the Government/OMCs to fix the responsibility for not implementing the PFIs effectively to achieve the projected targets. The Committee further desire the Government/OMCs to ensure successful

implementation of the remaining PFIs so that the targeted benefits from these proposals are achieved. As regards, implementing these PFIs in other potential refineries, Government's Action Taken Reply is silent, the Committee, therefore, reiterate their earlier recommendation and desire that these should be introduced in other refineries also. The Committee would like to be apprised of the conclusive action taken in this regard.

Community Development Programme by Petroleum Companies

Recommendation Sl. No. 20 (Para No.5.20)

12. The Public Sector Refineries undertake various Community Development activities in and around the areas where these refineries are located. These activities are concentrated on three focus areas viz., Clean Drinking Water, Health & medical Care and Expansion of Education. A glance at the expenditure details of these refineries during the last 5 years revealed that the expenditure incurred by the BPCL Kochi Refinery on such activities during 2007-08 had gone down drastically to Rs.182 lakhs from Rs.578 lakhs in 2006-07. Again, the expenditure incurred by the Numaligarh Refinery Limited during 2006-07 (Rs.30.06 lakhs) and the HPCL Vishakhapatnam Refinery during 2007-08 (Rs.14.06lakhs) were significantly lower as compared to the remaining 4 years. The Committee had desired to be apprised of the reasons for low expenditure by these companies on such activities. The Committee had recommended that adequate amount should be spent by the oil refining companies on Community Development activities. The Committee had further recommended that the Government should consider the feasibility of laying down certain guidelines for the Private Sector Oil Companies also for carrying out Community Development activities.

13. In their Action Taken Reply, the Ministry of Petroleum & Natural Gas has submitted as under:-

> **"BPCL**
>
> Kochi Refinery has initiated Major Community Development activities in FY 07/08 which are being undertaken through the local self governments and are in different stages of its implementation and may reach its completion in the next two years. The payments are being released stage-wise, based on completion of each stage.
>
> From 2008-09 onwards, the CSR budget of the corporation has been

increased from 0.5% to 2% of the net profit of the company during the previous financial year.

HPCL

The expenditure incurred during last five years, under Special Component Plan/ Tribal Sub Plan & Welfare Plan for Weaker Section by Mumbai Refinery (MR) & Vishakhapatnam Refinery (VR) is as under:

(Rs.in Lakhs)

MAIN ACTIV	EXPENDITURE INCURRED										Amount approved for 2009-10	
	2004-05		2005-06		2006-07		2007-08		2008-09			
	MR	VR	MR	VR	MR	VR	MR	VR	MR	VR	MR	VR
Primary Education	22.15	9.61	48.11	30.53	18.00	12.86	18.35	-	29.15	-	32.58	6.40
Scholarships for Graduatic Studies	-	8.46	-	9.79	0.86	12.00	9.58	14.06	14.59	9.72	16.80	-
Drinking Water Facilities	-	0.51	-	-	-	-	-	-	-	-	-	-
Health Care	-	10.25	-	16.57	-	2.53	0.68	-	0.90	35.83	0.57	-
Income Generating Schemes / Vocational Training	-	-	-	0.40		-	-	-	-	-	-	-
Rehabilitation of Persons with Disabilities	-	3.22	-	-	-	1.19	-	-	-	-	-	-
Other Welfare Activities	-	1.78	-	-	-	0.51	-	-	-	15.95	-	37.21
CSR - Unnati	-	-	-	12.60	-	12.60	-	14.16	-	30.00	-	10.00
CSR – Nanhikali	-	-	-	5.00	-	5.00	-	10-00	-	37.00	-	72.49
Other CSR Activities	-	-	-	-	-	-	-	-	-	35.00	-	18.00
TOTAL	22.15	33.83	48.11	74.89	18.86	46.69	28.61	38.22	44.64	163.50	49.95	144.10

IOCL

During the last three years, i.e. April 2006 to March 2009, an expenditure of Rs.1,019.94 lakhs was incurred on various community development activities undertaken by Refineries Division including Assam Oil Division. (Details are in enclosure-A)”

Enclosure-A

Expenditure incurred by IOCL Refineries under Community Development Programme During the last 5 years

2004-05 (Rs. Lakhs)

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	3.60	3.00	14.75	2.30	4.64	3.60	0.10	0.00	0.00	**31.99**
Health & Medical Care	4.25	7.50	9.60	7.10	20.64	11.14	18.60	0.00	8.35	**87.18**
Expansion of Education	6.15	7.75	8.40	10.40	2.25	25.58	17.95	0.00	0.00	**78.48**
New Opportunities for youth	0.00	0.00	0.00	0.95	0.00	5.42	0.00	0.00	0.00	**6.37**
Others	11.97	13.25	10.25	0.25	0.00	1.24	0.00	0.00	0.00	**36.96**
Total	**25.97**	**31.50**	**43.00**	**21.00**	**27.53**	**46.98**	**36.65**	**0.00**	**8.35**	**240.98**

2005-06

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	2.27	6.51	8.50	3.34	8.70	11.20	6.50	0.00	0.00	**47.02**
Health & Medical Care	3.17	7.83	19.34	6.42	1.93	0.00	11.90	0.00	0.00	**50.59**
Expansion of Education	7.80	14.36	15.26	13.08	0.00	17.11	27.60	0.00	0.00	**95.21**
Others	15.66	6.00	0.00	0.00	8.53	8.56	0.00	0.00	0.00	**38.75**
Total	**28.90**	**34.70**	**43.10**	**22.84**	**19.16**	**36.87**	**46.00**	**0.00**	**0.00**	**231.57**

2006-07

Year 2006-07										
Activity	**G**	**B**	**J**	**H**	**M**	**P**	**AOD**	**PDRP**	**R-HQ**	**Total**
Clean Drinking Water	4.33	6.00	14.88	3.06	12.00	4.00	22.00	4.00	0.00	**70.27**
Health & Medical Care	7.06	7.50	7.87	5.34	2.25	20.62	10.55	3.90	0.00	**65.09**
Expansion of Education	5.18	3.51	19.97	19.25	12.75	19.65	22.45	2.00	0.00	**104.76**
Others	18.42	20.00	1.40	0.35	1.48	5.50	0.00	0.00	0.00	**47.15**
Total	**34.99**	**37.01**	**44.12**	**28.00**	**28.48**	**49.77**	**55.00**	**9.90**	**0.00**	**287.27**

Year 2007-08

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	1.12	6.50	10.00	7.25	10.48	6.30	13.04	8.51	0.00	**63.20**
Health & Medical Care	17.89	11.68	13.15	6.95	17.30	25.60	13.47	5.91	1.50	**113.45**
Expansion of Education	6.59	2.46	16.50	24.91	3.50	25.75	33.48	0.00	7.50	**120.69**
Others	41.53	12.80	5.00	2.91	7.73	17.01	0.00	0.00	0.00	**86.98**
Total	**67.13**	**33.44**	**44.65**	**42.02**	**39.01**	**74.66**	**59.99**	**14.42**	**9.00**	**384.32**

Year 2008-09

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	11.94	5.88	13.80	2.02	13.04	2.12	12.63	3.00	0.21	**64.64**
Health & Medical Care	18.47	6.90	3.60	5.10	3.77	16.40	16.05	5.90	0.00	**76.19**
Expansion of Education	20.03	3.30	4.90	20.53	1.50	16.83	34.32	3.10	1.50	**106.01**
Others	17.66	11.92	12.40	4.35	5.81	14.70	0.00	0.00	0.00	**66.84**
Total	**68.10**	**28.00**	**34.70**	**32.00**	**24.12**	**50.05**	**63.00**	**12.00**	**1.71**	**313.68**

Note : G : Guwahati Refinery, B : Barauni Refinery,
J : Gujarat Refinery, H : Haldia Refinery,
M : Mathura Refinery, P : Panipat Refinery,
AOD : Assam Oil Division, PDRP : Paradip Refinery Division.

14. In view of the lower Corporate Social Responsibility (CSR) spending by oil PSUs, the committee had desired the Public Sector refining companies to allocate adequate funds towards community development activities. Although, the committee appreciate that BPCL has increased its CSR budget from existing 0.5% to 2% of the net profit of the company from the year 2008-09 onwards, the reply of the Government is silent about the steps taken by other oil marketing companies to increase their share towards community development programme. The Committee would, therefore, like to be apprised of the steps taken by other OMCs to increase their CSR budget in line with that of BPCL.

15. The Committee, had, <u>inter-alia</u> also recommended that the Government should consider the feasibility of laying down certain guidelines for the Private Sector Oil Companies for carrying out Community Development activities. The Committee find that the issue has not been dealt with in the Action Taken Replies furnished to the Committee. The Committee desire that the Government should uniformly make the allocation of budget for CSR by the private oil companies mandatory and enforce the same uniformly.

CHAPTER II

RECOMMENDATIONS WHICH HAVE BEEN
ACCEPTED BY THE GOVERNMENT

RECOMMENDATION Sl.No.1 (Para No.5.1)

The Committee find that the present refining capacity of the Public and Private Sector Refineries is 105.47 MMTPA and 43.50 MMTPA, respectively. The capacity additions planned by the Public and Private Sector Refineries during the 11th Plan are 53.49 MMTPA and 38.50 MMTPA, respectively. The increase in percentage terms in the additional capacity turns out to about 51% in case of Public Sector Refineries and approximately 89% in case of Private Sector Refineries. Thus, while the Public Sector Refineries have decided to go in for lower capacity addition (in percentage terms), the Private Sector Refineries have taken a gigantic stride in this direction. The Committee are at a loss to understand the lower capacity addition (in percentage terms) by the Public Sector Refineries. Since additional capacities would give more and more opportunity to companies to increase their export quantum and improve their bottomlines, the Committee would like the Public Sector oil companies to go in for further expansions in their existing Refineries and also set up new ones at strategic locations, having export advantages.

REPLY OF THE GOVERNMENT

IOCL

IOC has adopted strategies for expansion of its existing refineries in line with opportunities available as well as creation of grass root refineries at strategic location having export advantages as given below :

A) Capacity Addition:

The updated position on the progress of the capacity expansion in Haldia and Panipat Refineries is as under:

(Thousand Metric Tonnes Per Annum)

Refinery	Capacity as on 01.04.09	Capacity Addition	Capacity by the end of XI Plan
Haldia	6000	1500	7500
Panipat	12000	3000	15000

With the above capacity addition in existing refineries, the capacity of IOC refineries will increase from 49.70 MMTPA (Million Metric Tonnes Per Annum) (as of 1.4.2009) to 54.20 MMTPA by the end of XI Plan, i.e increase by about 9% over present capacity.

B) Grass root Refinery :

Besides the low cost revamp, IOCL has also planned a new grass-root refinery of 15.0 MMTPA capacity at coastal location of Paradip alongwith product export facilities.

IOCL is continuously examining the opportunities available for capacity augmentation, value addition, improvement in energy efficiencies, product quality improvements etc. and to enhance overall profitability. In order to achieve these objectives, constant contacts are maintained with all global technology providers and regular studies are carried out through internationally reputed consultants apart from various studies through in-house expertise.

HPCL

HPCL has two refineries one each at Mumbai & Visakhapatnam with an installed capacity of 6.5 MMTPA and 7.5 MMTPA respectively.

Currently, Visakhapatnam Refinery (VR) is de-bottlenecking CDUs (Crude Distillation Units) to increase the current refining capacity from 7.5 MMTPA to 8.3 MMTPA. VR is also exploring the possibilities to increase the refining capacity from 8.3 MMTPA to 10 MMTPA by augmenting CDU-II & CDU-III capacities.

B) Grass root Refinery :

HPCL-Mittal Energy Limited (a Joint Venture Company between HPCL & Mittal Investments Pte Ltd) is setting up a 9 MMTPA capacity Green Field Refinery at Bathinda, Punjab. The project is progressing as per schedule and is expected to be completed by May 2011.

In order to meet the growing demand of petroleum products in the Western and Southern Regions and to secure / strengthen our position in these markets,

HPCL is proposing to set up a new 15-20 MMTPA capacity World Class Green Field Refinery with State of the Art technology in the State of Maharashtra.

BPCL

The Capacity expansion of BPCL-Kochi Refinery is already completed and the capacity of the Refinery has increased from 7.5 MMTPA to 9.5 MMTPA. The Refinery Modernisation part of the project is under implementation and is expected to be mechanically completed by June 2010.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION SI.No.2 (Para No.5.2)

Out of the proposed 53.49 MMTPA capacity addition by Public Sector Refineries during the 11th Plan, as many as 15 MMTPA capacity would be generated by a single project viz. the Paradip Refinery and Petrochemical Project. The Committee are unhappy to find that the work on this important project has not been progressing satisfactorily. There have been shortfalls in the financial and physical performance relating to the project. The expenditure incurred on the project from April 2006 to December 2007 has been to the extent of only Rs.447 crore vis-à-vis the target of Rs.1,353 crore. Similarly, the physical achievement has been 72.05% as against the target of 78.02%. The Committee desire the IOCL to attach due importance to this project and execute the different components of work on this project as per the road map prepared for the purpose.

REPLY OF THE GOVERNMENT

Pre-project jobs have been mostly completed for original scope of work in July'2009. In final phase of completion of pre-project activity, Board of Directors in its meeting held on 28.2.2009 have accorded final investment approval to the 15 MMTPA Paradip Refinery Project at an estimated cost of Rs.29,777 Crore. Bank syndicate loan of Rs.14,900 crore has been firmed up with M/s SBI Capital Markets Limited (SBICAPS) as lead banker and supported by 20 PSU banks in India.

IOCL has attached high importance to the project and the project is being regularly reviewed & monitored at the Board level for achieving the approved completion schedule progressively from Mar 2012 to Nov. 2012.

The overall physical progress of the project is 13.76% as on 31.1.2010.

The total commitment on the project as on 31.1.2010 is Rs. 6,292 crore and expenditure is Rs.2,582 Crore.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.4 (Para No.5.4)

The Committee find that based on the Detailed Feasibility Report, the estimated cost of the Paradip Refinery-cum-Petrochemical Project is Rs.25,646 crore with a completion schedule of October, 2011. The Committee have subsequently been informed during evidence that the cost of the refinery alone would be Rs.29,000 crore and that of the petrochemical complex, about Rs.20,000 crore. Thus, the cost of the project has nearly doubled. The completion schedule, as per the Consultant of the project, is 50 months from Investment Approval. The Committee learn that the financial closure of the project is scheduled by November, 2008 after which the Investment Proposal would be put up to the Board of Directors of IOCL. Adding 50 months to this event, it is seen that the project is not going to be completed before the end of 2012. Thus, the completion schedule of October, 2011 stipulated for the project is not going to be adhered to. Besides, the funding methodology for execution of the project is yet to be finalized. The Committee advise the IOCL to expedite the fund-raising process and complete the project as early as possible so as to avoid further cost overruns.

REPLY OF THE GOVERNMENT

The Board of Directors of the Indian Oil Corporation Limited, in its meeting held on 28.2.2009, have accorded final investment approval to the 15 MMTPA Paradip Refinery Project at an estimated cost of Rs.29,777 Crore. Bank syndicate loan of Rs.14,900 Crore has been firmed up with M/s SBI Capital Markets Limited (SBICAPS) as lead banker and supported by 20 PSU banks in India.

Having completed major Pre-Project Infrastructure development jobs, refinery construction activities have started in full swing.

Physical & Financial Progress as on date

As on 31.1.10, 13.76% overall physical progress has been achieved and approximately Rs.2,582 crore expenditure has been incurred against cost commitment of approximately Rs.6,292 crore.

Schedule of Completion

The project is scheduled to be progressively completed and stabilized from Mar 2012 to Nov.2012.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.5 (Para No.5.5)

The Committee note that BPCL is implementing a 6 MMTPA refinery project at Bina, Madhya Pradesh at an estimated cost of Rs.10,378 crore with a completion schedule of December 2009. Similarly, HPCL has also formed a joint venture for implementation of a 9 MMTPA refinery project at Bhatinda, Punjab at an estimated cost of Rs.19,000 crore which is scheduled for completion in 2010-11. The Committee earnestly desire that these projects should be completed as per schedule so as to avoid cost overruns.

REPLY OF THE GOVERNMENT

Bharat Oman Refineries Limited (BORL), a BPCL joint venture company is implementing a 6 MMTPA refinery project at Bina at a revised cost of Rs.11,397 crore. The physical progress of the project is 98.2% as of January 2010. Single Point Mooring facilities, Crude Oil Terminal and 935 km Vadinar-Bina crude oil pipeline have been commissioned. Mechanical completion of various process units are expected to commence from March 2010. The delay in supply of critical equipment and completion of captive power plant by M/s. BHEL is an area of concern and is being reviewed at senior management level of BORL, EIL & BHEL. The Refinery is expected to be put into commercial operation by October, 2010.

Guru Gobind Singh Refinery Project at Bathinda of HMEL (a JVC of HPCL with Mittal Investments Pte Ltd) is contractually scheduled for Mechanical Completion by May 2011. After the Mechanical Completion the refinery units will be commissioned progressively. The project is progressing as per schedule.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.10 (Para No.5.10)

Gross Refining Margin (GRM) represents the difference between the average price realized on sale of finished products and the cost paid for crude oil. An analysis of data relating to GRM of the 15 major Public Sector Refineries during the last 4 years indicates that GRMs have been as low as 1.64 dollar per barrel (BPCL Mumbai in 2005-06) and as high as 21.90 dollar per barrel (IOCL Digboi in 2007-08). Only 4 Refineries (IOCL Mathura, IOCL Panipat, IOCL Digboi and BRPL) have registered double digit GRMs during 2007-08. All other Refineries have earned GRMs of less than 10 dollar per barrel during the year. Further, the Committee also find that the Gross Refining Margins earned by two refineries viz. IOCL Guwahati and NRL during 2007-08 have been less as compared to the previous three years. The Committee would like to be apprised of the reasons for the same. The Committee have further been informed that the GRMs registered by RIL have been 10.30, 11.70 and 15.00 dollar per barrel

during 2005-06, 2006-07 and 2007-08, respectively. They find that only two Public Sector Refineries viz. IOCL Digboi and BRPL have registered higher GRMs vis-à-vis RIL during these years. The Committee desire the Public Sector Refineries to enhance their GRMs by bringing in technological sophistication, controlling operating cost, reducing fuel and loss, etc.

REPLY OF THE GOVERNMENT

IOCL

The GRM of each refinery depends upon a number of factors like the crude mix, the product yield, inventory holding, operational efficiency, tariff protection, price movement of crude & products etc.

In case of Guwahati Refinery the GRM for last five years is given below

Year	2004-05	2005-06	2006-07	2007-08	2008-09
GRM ($/bbl)	14.02	10.17	10.48	8.61	18.23

The reasons for higher in GRM in 2008-09 as compared to 2007-08 are given below:

a) Increase in GRM by $6.47/ bbl on account of impact of ONGC/OIL discount on closing stock.

b) Increase in GRM by $4.10/bbl due to change in Benchmark for Assam crude oil.

c) Increase in GRM by $1.98/bbl due to improvement in operational parameters, such as:

- Improvement in Distillate Yield from 81.2% in 2007-08 to 82.4% in 2008-09 and product mix (impact $0.89/bbl)
- Reduction in Fuel & Loss from 14.2% in 2007-08 to 12.6% in 2008-09 (impact $1.09/bbl)

d) Reduction in GRM due to reduction in sales tax & Pipeline transportation cost (impact $1.58/bbl), reduction in customs duty on petroleum products (impact $0.47/bbl), Entry tax (impact $0.63/bbl) and others (impact $0.25/bbl).

To improve the GRMs of its refineries and thereby enhance the overall profitability, IOCL continuously explores the opportunities available for capacity

augmentation, value addition, improvement in energy efficiency, improvement in product quality, etc. Constant contacts are maintained with all global technology providers and regular studies are carried out, both in-house as well as through internationally reputed consultants.

Benchmarking studies through Shell Global Solution International were undertaken in 2003-04 and 2004-05. Business improvement studies through Shell GSI were also undertaken in Mathura refinery in 2007-08. Residue Upgradation Project (RUP) and Once through Hydrocracker (OHCU) Project are under implementation at Gujarat and Haldia refineries respectively.

With the technological improvements, distillate yield of existing IOC refineries is expected to increase to 77% from the current level of 75.2% (in 2008-09). Processing of High Sulphur crude will also increase in all refineries of IOC. It is expected to increase from the current level of 46.1% (in 2008-09) to 69% post commissioning of Paradip refinery.

HPCL

HPCL refineries in Mumbai and Vishakhapatnam strive for improvement of their GRMs through technological and operational improvements on continuous basis. The capacities as well as the complexities of both the refineries have been increased over the period. The refineries are capable to process a wide basket of crudes and High Sulphur crude up to 60% of their capacity. Some of the plans being undertaken by the refineries for GRM improvement are as follows:

- Enhancement of High Sulphur crude oil processing to 80%;
- Increasing the capacities of the secondary processing units;
- Yield improvement by bottom upgradation at Mumbai refinery through SDA unit;
- Installation of Delayed Coker Unit at Vishakhapatnam refinery;
- Adoption of advance process control technologies;
- Fuel quality improvement to upgrade Naphtha to BS-III/Iv Petrol;

- Low cost expansion of Vishakhapatnam refinery from 7.5 MMTPA to 8.33 MMTPA;

- Implementation of proposals suggested by Shell GSI during the Integrated Refinery Business Improvement Program study at Vishakhapatnam refinery.

BPCL

BPCL Mumbai refinery has to pay Octroi of 3% levied by Municipal Corporation of Greater Mumbai on advalorem basis. The adverse impact of the octroi cost on GRM of BPC Mumbai Refinery is as follows:

Octroi Cost	2005-06	2006-07	2007-08
Rs. crore	602	794	940
Rs. per MT	585	660	738
$ per Barrel	1.76	1.94	2.44

BPCL has undertaken various initiatives to improve the GRM of its refineries in Mumbai and Kochi, some of which are given below:

a) Setting up of a central Supply Chain Optimization (SCO) for :

- End to end supply chain optimization starting from crude oil procurement to product distribution optimization;
- Maximize contribution through product slate and crude slate decisions based on actual cost;
- Reduce cost by optimizing freight choices and rationalising the depot network;
- Reduce system inventory cost through superior supply chain decisions.

b) The International Trade Department has been restructured into Trade & Risk Management set up to enable efficient and timely crude procurement for the refineries. BPCL has also undertaken hedging of refinery margins to manage the volatility affecting the refinery margins. The hedging activity has been expanded to cover exposures arising out of platinum required for reformer catalyst at the refineries.

c) Mumbai refinery has set up an integrated fuel efficient Crude / Vacuum Distillation Unit, Hydrocracker and Group II Lube Oil Base Stock facilities as a part of Refinery modernization program during 2005 & 2006. These improve distillate yield, energy efficiency and value addition which have a positive impact on GRM.

d) At Kochi refinery, the Integrated Refinery Business Improvement Program (IRBIP) by Shell Global Solutions International has been implemented for Margin improvement.

e) The project for crude receipt facilities at Kochi Refinery has been implemented consisting of Single Point Mooring for berthing of large crude carriers (VLCC), shore tanks and associated pipelines for reducing crude oil transportation cost. The project has been commissioned in December 2007.

f) The Refinery Modernisation project at Kochi Refinery is being implemented in two phases. The phase I of the project for production of products meeting BS II specification has been completed. The Capacity expansion cum modernisaton project is under implementation as the phase-II of Refinery Modernization project. The project envisages setting up facilities for production of auto fuel conforming to Euro III / Euro IV and refinery capacity expansion from 7.5 MMTPA to 9.5 MMTPA. This would enable flexibility to process higher quantities of high sulphur crude oil depending on price advantage.

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RECOMMENDATION Sl.No.11 (Para No.5.11)

A glance at the R&D expenditure incurred by the oil Refineries / Companies during the last five years reveals that only a relatively small amount has been spent by these companies on this most important activity. Besides, the R&D expenditure has shown a downward trend in case of IOCL, HPCL and BPCL after 2004-05. One company viz. BRPL has not incurred any expenditure on R&D during 2005-06 and 2006-07. The Committee are unhappy that such an important activity as R&D is not being given due attention by the oil Public Sector Companies. They, therefore, desire these companies to pay adequate attention to the R&D spending in future.

REPLY OF THE GOVERNMENT

IOCL

Expenditure incurred by IOCL on R&D from 2004-05 onwards is given below.

Rs.Crore

	2004-05	2005-06	2006-07	2007-08	2008-09
R&D Expenditure	107.73	89.83	80.42	122.12	173.37

HPCL

An amount of Rs.55 crore has been allocated to develop infrastructure and facilities of R&D centre under the XI Plan.

During the years 2007-08 & 2008-09, the expenditure included the balance land acquisition activities. Once the total land acquisition is completed, it is planned to progress with the site development activities and the infrastructure facilities in subsequent stages.

Delay in land acquisition activity caused delay in overall project process and progress.

BPCL

BPCL's expenditure on R&D activities during 2005-06 to 2008-09 is given below :

Rs. Crore

	2005-06	2006-07	2007-08	2008-09
R&D Expenditure	18.87	18.42	25.64	30.24

BPCL is continuously enhancing its Research & Development capabilities. The Corporate R&D Centre has made significant value additions at the refineries through development and commercialization of in-house developed products like :

i. Fuel additive for high octane MS;

ii. Corrosion inhibitor additive for gasoline – ethanol blends;

iii. A cost effective process has been developed for conversion of non-edible oils with high fatty acid content to bio-diesel and the process is being scaled up for setting up a pilot plant for process

demonstration. Major research project have been initiated in the emerging areas of coal to clean liquid fuels, bio-fuels and hydrogen storage;

iv. R&D centre at Kochi refinery has developed a unique environment protection technology for removing toxic hydrogen sulphide gas produced while crude oil is heated to high temperatures. This technology for de-sulphurisation of very low pressure off-gas generated from the Vacuum Distillation Unit has been developed in-house and is being commercialized.

v. BPCL, along with EIL, has been identified as a nodal agency for research and development studies in the area of liquid fuel production from high ash Indian coal and petcoke.

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RECOMMENDATION Sl.No.12 (Para No.5.12)

The Committee have been informed that a number of technologies such as INDMAX, DHDT, needle coke, bio-remediation of oily sludge, etc. have been developed through R&D activities carried out by the Oil Companies. The Committee, while appreciating the efforts of the Oil Companies, desire that such technologies should be extensively used in the various refineries which would lead to improvement in refining margins, savings and other benefits. The Committee also desire that adequate manpower should be deployed in the R&D Centres of Oil Companies.

REPLY OF THE GOVERNMENT

IOCL

Food Grade Hexane / Polymer grade hexane Technology has been developed by IOCL R&D.

Bioremediation is regularly being used for commercial applications to refineries, marketing terminals, and pipelines and to oil exploration and production sites. It is being effectively employed for disposal of oily sludge generated at: Oil refineries for crude oil tank bottom sludge, Marketing Installations for product

storage tank sludge, Pipeline installations, Drill cuttings and oil spills at oil exploration sites.

Recently, Indian Oil-R&D and TERI jointly offered Technical assistance to tackle Oil Spillage off Orissa Coast**:** There was a huge oil spillage at Paradip Coast due to sinking of an oil tanker named " Black Rose" carrying over 1,000 KL of Furnace oil. IOC-R&D and TERI have jointly developed a bioremediation technology suitable for handling oil spillage in saline/sea water.

HPCL

Collaborative research projects in the areas of Bio De-Sulphurization, Bio-Hydrogen, Resid Up-gradation have been taken up in the areas of refinery processes, during the last three years.

Manpower requirement has been proposed in stages and on need basis.

BPCL

BPCL has been adopting indigenously developed technologies wherever suitable technologies are available. BPCL has also developed several technologies through its own R&D efforts. In addition to the technologies given in the Action Taken Reply earlier, the following technology is in use at BPCL:

Bharat Metal Cutting Gas – Patented technology for the production of Bharat metal cutting gas (BMCG) additive and gas composition has been developed by BPCL R&D. Based on this technology a plant for the production of BMCG additive has been set up.

The R&D set up at BPCL is being continuously strengthened by adding new research facilities and manpower. The current manpower at BPCL R&D is about 70.

RECOMMENDATION SI.No.15 (Para No.5.15)

The Committee note that the BPCL Kochi Refinery is implementing a Capacity Expansion cum Modernisation Project. While the Phase-I of the project has been completed, work on the Phase-II, which envisages setting up of facilities for enhancing the refining capacity from the present 7.5 MMTPA to 9.5 MMTPA and production of auto fuels conforming to Euro-III norms, is going on at present. The Committee have been informed that the project is scheduled to be completed in September, 2009 and that the overall physical progress as on 31.12.2007 was 18%. The Committee feel that the progress on the project has not been very satisfactory. Since less than one year is left for the commissioning deadline, the Committee desire the BPCL to act fast on the project and complete it as per prescribed schedule.

REPLY OF THE GOVERNMENT

BPCL-Kochi Refinery is presently implementing the Capacity Expansion-cum-Modernisation Project Phase II (CEMP-II). The Objective of the Project is

a. To set up facilities for producing auto-fuels conforming to Euro III/IV quality specifications.

b. Enhancing the refining capacity of BPCL-Kochi Refinery to 9.5 Million Metric Tonnes per Annum from the present capacity of 7.5 MMTPA by revamping the existing Crude Distillation Unit II

The estimated Project Cost is Rs.3,941 crore. The physical progress achieved as on 15.02.2010 is 91. 83 %.

The capacity expansion part of CEMP-II for enhancing the capacity of the refinery from 7.5 to 9.5 MMTPA has been commissioned. The trial run of Captive Power Plant of 32 MW capacity is in progress.

The equipment erection except for two compressors, piping, electrical and instrumentation works are in progress for all units and offsite areas. However, the delay is supply of critical equipment by BHEL is an area of concern and is being

reviewed at senior management level of BPCL, BHEL and MOP&NG. The project is now expected to be mechanically complete by June 2010.

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RECOMMENDATION Sl.No.16 (Para No.5.16)

The Committee are unhappy to find that the Fuel and Loss and Hydrocarbon Loss data of the Public Sector Refineries during the last five years have not been very encouraging. The consolidated Hydrocarbon Loss, which was 0.39% in 2002-03, has gone up to 0.42% in 2006-07. Worse is the case with Fuel & Loss of Refineries during the said period. The consolidated Fuel & Loss, which was 7.27% in 2002-03, has gone up during each successive year to register 8.26% in 2006-07. Five of the Refineries viz., NRL, IOCL-Panipat, IOCL-Digboi, IOCL-Gujarat and BPCL-Mumbai have registered increases in the Fuel and Loss percentage since 2004-05. The Committee desire the PSU Refinery Companies to pull up their socks and bring in improvements in the Fuel and Loss and Hydrocarbon Loss percentages.

REPLY OF THE GOVERNMENT

IOCL

Hydrocarbon Loss: The Hydrocarbon Loss in %wt. of crude in Indian Oil Refineries from 2002-03 to 2008-09 is as under:

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
IOCL Refineries	0.31	0.27	0.28	0.30	0.29	0.27	0.26
Industry (PSU) Avg.	0.39	0.51	0.47	0.42	0.42	0.41	0.40

It can be seen from the above that the Hydrocarbon Loss performance of IOCL refineries has remained below 0.30% on crude and is better than the Industry average This level could be sustained by taking pro-active actions and implementation of various hydrocarbon loss reduction schemes/measures like flare gas recovery, coker blow-down recovery, slop reduction measures, commissioning of new pipelines etc.

Fuel & Loss: The Fuel & Loss in %wt. of crude for overall Indian Oil Refineries, IOCL-Panipat, Digboi and Gujarat refineries from 2002-03 to 2008-09 are as under:

Refinery	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
IOCL-Panipat	8.6	8.3	8.5	10.8	12.1	10.0	9.6
IOCL-Digboi	9.1	12.8	11.8	12.1	12.4	12.8	11.9
IOCL-Gujarat	6.8	6.5	7.4	7.5	7.6	7.2	7.0
IOCL Overall	**8.0**	**8.1**	**8.4**	**9.3**	**9.1**	**8.8**	**8.5**

The fuel & loss of a refinery depends on capacity, configuration / technology, compliance of stringent fuel quality & environment norms, product pattern and complexity. In many of the IOCL refineries, new secondary units have been added to increase distillate yields and to improve Gross Refinery Margin (GRM). Similarly, quality upgradation projects have been implemented in the refineries to meet the stringent quality norms of BS-II/ Euro-III Motor Spirit and BS-II/ Euro-III Diesel in view of environmental concerns. The above have increased the complexity of the refineries and resulted into corresponding increase in fuel & loss.

The specific reasons / factors for increase in fuel & loss in Panipat, Digboi & Gujarat refineries and overall IOCL are explained below:

a) **Panipat:** The fuel & loss increased in 2005-06 & 2006-07 due to increase in complexity factors consequent to commissioning of new projects like Panipat Refinery Expansion Project in 2005-06, and Petrochemical Units (PX/ PTA) in 2006. The above has improved since 2007-08 after stabilisation of new units and implementation of various ENCON measures.

b) **Digboi**: The fuel & loss has increased since 2003-04 mainly due to commissioning of new quality upgradation projects e.g. HGU and DHDT in 2003. It has increased marginally in 2007-08 due to lower crude t'put because of limited availability / allocation of Assam Crude to Digboi refinery. However, the same has reduced in 2008-09.

c) **Gujarat**: The fuel & loss has increased since 2004-05 due to increase in complexity factor consequent to commissioning of new units like LAB and MSQ / CCRU in August, 2004 and October, 2006 respectively. However, the same has reduced since 2007-08 after stabilisation of new units and implementation of various ENCON measures.

d) **Overall Fuel and Loss :** Besides the new projects **/** units in above mentioned three refineries, in other IOCL refineries also, new units as illustrated below, were added resulting in increase in improvement of overall complexity and Fuel and loss performance of IOC refineries**:**

- HGU/DHDT in April/ May, 2005 and MS Quality improvement project in June, 2005 at Mathura Refinery
- RFCCU, DHDT, HGU in August, 2002, October, 2002, April, 2002 respectively at Barauni Refinery
- MS quality improvement project in 2005 at Haldia Refinery
- INDMAX unit in June, 2003 at Guwahati Refinery

- To take care of variation in complexity factor, thruput level, refinery configuration etc., specific energy consumption in terms of MBN (MBTU/ Barrel/ NRGF), where NRGF is energy complexity factor, is more scientific & better parameter for Energy Performance monitoring / comparison and the same is being used by Centre for High Technology (CHT) also for this purpose. The overall performance of IOCL refineries and the performance of specific refineries in terms of MBN, are given below since 2002-03:

Figs in MBTU/ BBL/ NRGF (MBN)

	2002-03	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Panipat	81	69	69	67	68	61	59
Digboi	128	151	99	92	92	92	82
Gujarat	78	70	79	75	73	69	66
IOC Overall	**85**	**77**	**77**	**73**	**71**	**67**	**64**
Industry (PSU) Avg.	89	82	81	76	74	71	69

It can be seen from the above, that though the fuel & loss has increased but the specific energy consumption has reduced in these years on overall IOC basis (85 in 2002-03 to 64 in 2008-09) as well as in specific refineries and the same is also better than PSU refineries average. This indicates improvement in energy utilization in IOCL.

HPCL

HPCL's Mumbai & Vishakhapatnam Refineries accord highest priority to optimize refinery operations, energy conservation and have undertaken several Encon measures by operational improvements and implementing of Encon projects.

Details of the Fuel and Loss performance of both refineries during last 5 years are given below:

	Mumbai Refinery					**Vishakhapatnam Refinery**				
	2008-09	**2007-08**	**2006-07**	**2005-06**	**2004-05**	**2008-09**	**2007-08**	**2006-07**	**2005-06**	**2004-05**
Fuel (%)	5.85	6.02	5.70	5.89	5.96	5.10	5.00	5.20	5.50	5.40
Loss (%)	0.79	0.83	0.64	0.87	0.61	0.59	0.58	0.60	0.50	0.70
F&L (%)	6.64	6.86	6.34	6.76	6.57	5.69	5.58	5.80	6.0	6.10
Specific Energy Consn. (MBBTU/NRGF/Bb	89.05	92.5	90.7	94.7	95.3	85.8	87.7	87.9	93.3	100.8

Both the Refineries are striving hard to reduce the Fuel and Loss by continuous upgradation of facilities and close monitoring of the operating parameters. The following measures have been recently undertaken by Mumbai Refinery to reduce the Fuel and Loss:

a) Provision of PRDS on depentanizer and Dehexanizer.
b) Preheating the treat gas in SEU-I Hydrofiner

BPCL

The "Specific Energy Consumption" (SEC), that encompasses the complexity factor and is also an indicator for assessing the energy performance of refineries, has shown consistent improvement and has reduced from 95.12 MBTU/BBL/NRGF during 2004-05 to the current level of 72 MBTU/BBL/NRGF. This has been achieved by implementing various energy conservation measures such as using modern pigging techniques for furnace cleaning during turnaround, anti-foulant injection in preheat exchangers to sustain pre-heat temperature, continuous monitoring of furnaces/boilers performance, etc.

BPCL Mumbai refinery was awarded first prize for having achieved best "Specific Energy Consumption" for FY 2007-08 among refineries under the category of composite Energy index ≤ 5 by the Center for High Technology (MOP&NG).

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CHAPTER III

RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLIES

RECOMMENDATION Sl.No.7 (Para No.5.7)

The Numaligarh Refinery Limited (NRL) is incurring losses in the retail marketing business. The Committee have been informed that the NRL had envisaged increasing the retail selling price of petrol and diesel at its 108 retail outlets w.e.f. 16.05.2008. However, the same was kept in abeyance in view of the concern shown by different stake-holders. In the opinion of the Committee, hiking the prices of petrol and diesel would lead to inconvenience and hardship to the consumers. Therefore, instead of thinking of price hike, the NRL authorities should pay attention to effective utilization of the vacant/unutilized premises at their retail outlets to earn additional revenues. The Committee believe that the recent cooling down of crude price would have significantly reduced the marketing losses of the company. They desire that the remaining marketing losses of the company be made up by initiating profitable non-fuel activities at its retail outlet premises.

Reply of the Government

Since NRL is not covered under Retail Under-Recovery Compensation Scheme applicable to the PSU Oil Marketing Companies namely IOCL, HPCL & BPCL, the under-recovery suffered by NRL on retail marketing of Petrol and Diesel is borne by the company. NRL has, however, not resorted to price hike of Petrol and Diesel.

The cooling down of crude price in the 3rd quarter of 2008-09 did eliminate the under-recoveries in retail marketing during that period. However, with the increase in crude price, NRL has again started incurring under-recoveries from the 1st quarter of 2009-10. However, the situation during 2009-10 is not as severe as it was in the year 2008-09.

Since the major non-fuel activities at Retail Outlets require capital investment, in view of uncertainties in retail marketing, NRL is unable to commit such major investment at this stage. Moreover, most of its Retail Outlets of NRL are located on Highways where potential for non-fuel activities is limited.

However, non-fuel activities have been started on a limited scale at selected Retail Outlets where potential for such business exists.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.8 (Para No.5.8)

Crude supply to Haldia, Barauni and BRPL is being affected by heavy silting in the Haldia port. The silting has resulted in reduction of carrying capacity of vessels of oil companies, thereby leading to higher shipping cost. The Committee have been informed that the IOCL has been constantly communicating with the port authorities in this regard. Besides, the former Secretary of the Ministry of Petroleum and Natural Gas had also held a meeting with the Chairman of the concerned port trust to improve the situation. The Committee desire the Secretary of the Ministry of Petroleum and Natural Gas had also held a meeting with the Chairman of the concerned port trust to improve the situation. The Committee desire the Secretary of the Ministry of Petroleum and Natural Gas and Chairman of IOCL to play a pro-active role in the matter and hold regular meetings with the port authorities in order to find a solution to the problem.

Reply of the Government

With the commissioning of Paradip SBM and the Paradip-Haldia Crude oil Pipeline in December 2008, dependency on Haldia Port for crude oil supplies to Haldia and Barauni refineries has drastically reduced. Presently, only some small cargos of imported crude and indigenous crude oil for Bongaigaon Refinery are being off-loaded at Haldia.

However, IOCL has been constantly interacting with officials of Kolkata Port Trust, under whose jurisdiction Haldia Port is operating, for improvement of draft in Haldia and regarding the progress of the various short term and long term measures undertaken by KoPT during the year.

Kolkata Port Trust has informed that dredging activities at Haldia channel particularly at Jellingham and Auckland is in progress. Job of rebuilding of spurs at Nichintopura area is also nearing completion. Other jobs taken up for improvement of Haldia draft are also in progress.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.13 (Para No.5.13)

The Committee find that the processing of high sulphur crude by some of the refinery companies has not been satisfactory. Out of the 11 public sector refineries which are processing high sulphur crude at present, the percentage of high sulphur crude processing in 2007-08 has been less than 50% in case of 4 refineries viz. BPCL (Mumbai), BPCL (Kochi), IOCL (Koyali) and IOCL (Barauni). Besides, the Committee also find that the quantum of such crude processed by four refineries in 2007-08 has been less as compared to 2006-07. These refineries are HPCL (Mumbai), BPCL (Mumbai), IOCL (Mathura) and IOCL (Haldia). In view of the low cost of high sulphur crude and the likely decline in low sulphur crude availability in future, the committee recommend that the public sector refineries in the country should enhance their ability to process more and more high sulphur crude which would reduce their input cost and generate handsome profits.

Reply of the Government

IOCL

IOCL owns and operates eight refineries in the country. Refineries at Guwahati, Digboi and Bongaigaon are designed to process indigenously available Assam Crude. Due to poor availability of Assam crude, Bongaigaon refinery processes Ravva crude along with Assam crude. High Sulphur (HS) crude is processed in the remaining five refineries at Barauni, Gujarat, Haldia, Mathura and Panipat.

Out of these five refineries, Barauni and Gujarat Refineries came up in early sixties primarily to process indigenously available Assam and Gujarat Crudes respectively. As and when major revamp was taken up, HS crude processing has been considered.

In line with strategy for input cost reduction, IOCL Refineries have already taken actions to enhance HS crude oil processing in all the five refineries. As a result, the overall HS crude oil processing has increased from 38.7% in 2005-06

to 46.1% in 2008-09, which means share of HS Crude has increased from 52.4% to 60.6% of total imported crude oil.

Further, various projects are currently under implementation. With the implementation of these projects, overall HS crude processing capability in IOCL refineries will increase from 46.1% (2008-09) to about 60% by the end of XI Plan i.e. 2011-12, which means share of HS crude will increase from 60.6% to about 75% of total imported crude oil.

HPCL

HS crude processing

Details of High sulphur (HS) crude processing by Mumbai and Vishakhapatnam refineries during the period 2004-05 to 2007-08 are given below:

Year	Mumbai Refinery	Vishakhapatnam Refinery
2004-05	59.0	43.3
2005-06	69.0	46.9
2006-07	65.9	56.0
2007-08	61.7	62.5

(% of High Sulphur Crude)

In order to capitalize profitability improvement opportunity available in cheaper but heavier HS crudes, Mumbai Refinery has shifted the HS crude mix from predominantly Arab Light crude to heavier crudes like Basrah and Kuwait. As a result, the average API of high Sulphur crude mix, which was 32.6 deg during 2005-06, reduced to 32.0 deg during 2006-07 and to 30.8 deg during 2007-08.

HPCL Mumbai Refinery has increased HS crude processing progressively from 59.0 % of 6.1 MMT in 2004-05 to 61.7 % of 7.3 MMT in 2007-08.

HPCL Vishakhapatnam Refinery has also steadily increased the HS crude processing from 43.0 % of 7.8 MMT in 2004-05 to 62.5% of 9.4 MMT in 2007-08. It could be achieved by usage of modern technologies of Gasoline Sulphur Reduction (GSR) & DeSox (SO2 removal) additives along with Fluidised Catalytic Cracker (FCC) Catalyst.

HPCL has recently implemented Clean Fuels project at both of its refineries to produce Euro-III **/** Euro-IV Petrol. Completion of these projects will also give leverage in processing more High Sulphur crude.

In addition to above, following projects, being implemented in order to further reduce the emission level from Refineries by manufacturing Euro-IV Diesel, will also help in enhancing HS crude processing :

- Installing Flue Gas Desulphurization (FGD) in FCC Units of both the Refineries, which are expected to be commissioned during 2010-11.
- Implementation of DHT project at both refineries to produce HSD conforming to Euro IV grade, which is expected to be completed by 2011.

After completion of above facilities & projects, HS crude processing capacity is likely to go up to 75-80 % in both the refineries.

BPCL

Processing of high sulphur crude at Mumbai refinery is constrained by the limits set for SO_2 emissions of 11.7 tons per day, which is very stringent compared to other Indian refineries

Crude processing mix (% of high sulphur crudes) of refineries depends on various factors like refinery configuration, environmental regulation, product quality requirement, availability of residue upgradation facilities, etc.

BPCL has set up a central Supply Chain Optimization (SCO) for end to end supply chain optimization starting from crude oil procurement to product distribution optimization to achieve improvement by reducing supply chain cost. The optimization is based on product demand, Net Corporate Realization (NCR) and the factors for crude processing mix.

Thus, as and when the opportunity arises, based on crude price differentials of high sulphur / low sulphur crude oil, the optimization is carried out to maximize value addition.

As a part of Refinery Modernisation Project (RMP), BPCL Mumbai refinery has set up Crude / Hydrocracker units in 2005 which enables processing of High Sulphur crudes.

Further, in line with the recommendation of the Standing Committee, the PSU refineries are continuously upgrading the configuration & metallurgy of their units to sustain the high sulfur crude processing.

Moreover, fuel quality up-gradation projects are presently being executed at PSU refineries to meet the stringent Environmental Norms. High sulphur crude processing is expected to go up post these projects commissioning, subject to overall corporate economics.

Processing of high sulphur crude oil is also restricted on emission & economic considerations. Further, the differential cost of high & low sulphur crude is also coming down, which makes low sulphur crude oil processing advantageous at times.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.14 (Para No.5.14)

A number of upgradation projects are being implemented by different Refinery Companies in the country. The Committee find that among the IOCL Refineries, the overall progress in the Panipat MS Quality Upgradation Project, Gujarat MS and HSD Quality Upgradation Project and Mathura MS Quality Upgradation Project has been to the extent of 18.46%, 16% and 12.35% respectively. Though the Government has stated that the overall progress has been as per schedule, the Committee view this progress as slow and apprehend that these projects might not meet their scheduled completion targets. They, therefore, recommend that special attention should be paid to these projects so as to ensure their timely completion. The Committee further find that for meeting the Euro-IV specifications, the CPCL is implementing a project for installation of a new Diesel Hydro Treating Unit which is scheduled to be completed in June 2010. Similarly, the Residue Upgradation Project of the CPCL is targeted to be completed during 2011. Since Euro-IV equivalent fuels in select cities are due to be introduced in April 2010 as per the Auto Fuel Policy, the Committee desire the company to advance the completion dates of these projects in line with the schedule / stipulation of the Auto Fuel Policy. The Committee also desire that the

upgradation projects of different Public Sector Oil Refinery Companies should be completed in accordance with the stipulation of the Auto Fuel Policy.

Reply of the Government

IOCL

The information relating to major ongoing projects in IOCL refineries for quality improvement is furnished below :

a) With aggressive follow up with the Project Consultants, Contractors/ Suppliers and by strict milestone based monitoring, IOCL has achieved completion of following projects which have been commissioned or are under commissioning/ pre-commissioning :

(i) As a part of Panipat Refinery Additional Expansion Project, additional Reactors at DHDT have been installed and commissioned in Nov 2009, making the Refinery is capable of producing Euro-III and Euro-IV HSD as per plan.

(ii) MS Quality Upgradation Project at Panipat Refinery has been commissioned in January 2010. With this, Panipat Refinery is capable of producing Euro-III and Euro-IV MS as per plan.

(iii) MS Quality Upgradation Project at Mathura Refinery has been commissioned on 20.2.2010. With this, Mathura Refinery will be capable of producing Euro-III and Euro-IV MS as per plan.

(iv) Hydrocracker at Haldia Refinery is under commissioning. With this, Haldia Refinery will be capable of producing Euro-III and Euro-IV HSD as per plan.

(v) MS and HSD Quality Upgradation Project at Gujarat Refinery: (Part of Residue Upgradation Project) :-

- Though M/s BHEL have delayed the Power Plant job by 9 months, compressor package by 10 months and M/s BP&CL have delayed compressor package by 10 months, IOCL's initiatives for advanced planning and all out efforts for material arrangement, have brought down the impact of delays. The units shall be commissioned with marginal delay, that is, by March/April 2010.

- Progress of Quality Upgradation part is 99.30 %, DHDT/HGU/ ISOM commissioning is targeted by Mar'10. Pre-commissioning activities of DHDT, HGU, SRU & ISOM are in progress. With this, Gujarat Refinery will be capable of producing Euro-III and Euro-IV MS & HSD.

b) Overall progress of Quality Improvement Projects in Eastern/ North Eastern Region is as follows:

(i) MS Quality Upgradation at Barauni Refinery : 80.27%.

(ii) MS Quality Upgradation at Guwahati Refinery : 89.50%.

(iii) MS Quality Upgradation at Digboi Refinery: 85.90 %.

(iv) MS Quality Upgradation at Bongaigaon Refinery: 75.34 %

(v) HSD Quality Upgradation at Bongaigaon Refinery (DHDT): 89.80 %.

IOCL had taken advance actions for expediting completion of above projects in North Eastern Region like special approvals of additional funds for pre-project activities and for procurement of Long Delivery items even before the final investment approval. However, the prevailing local conditions, as detailed below, have affected the completion schedule.

- Unwillingness of reputed parties to work in the region which resulted in poor response to Consultancy bids & high quotes for LSTK bids.
- Shortage of Technical resources in the region.
- Frequent Bandhs & road blockades.
- Logistic problems in transportation of material/equipment.

In addition to above, delays by M/s BHEL in Power Plant jobs at Bongaigaon & Barauni, delay by M/s BP&CL in supply of compressor package to Barauni and poor progress of Bongaigaon site works by M/s Stewarts & Lloyds (S&L) have affected the completion schedule.

IOCL have taken pro-active steps to minimise delays by forming expediting teams for material deliveries, high level reviews with BHEL, BP&CL, S&L and with site contractors, offloading of jobs from non-performing contractors and resorting to extended working hours at site. With these efforts, it is expected that these projects would be commissioned by June 2010.

HPCL

The status of upgradation projects are as follows:

Fuel quality improvement projects

HPCL Mumbai & Vishakhapatnam Refineries have implemented Green Fuel Emission Control (GFEC) & Clean Fuel Project (CFP) to upgrade the current

BS-II MS to BS-III/ IV grade. Along with meeting quality stipulations, these projects would also enable the refineries to upgrade Naphtha to Gasoline, i.e. value added product. Both the Refineries have commissioned Clean Fuels Project to manufacture MS, conforming to BS-IV. Both the Refineries are capable to convert entire HSD production to BS-III grade and limited production of BS-IV with the existing facilities by change in unit's parameters, blend management and crude mix etc.

Both the refineries are also putting up new Diesel Hydro-Treater units (DHT) to convert entire HSD production to BS-IV grade. These projects are expected to be completed by 2011. Close monitoring is being carried out to ensure timely completion of these projects, which are progressing as per schedule and expected to be completed by September 2011.

BPCL

BPCL Mumbai Refinery has been in the forefront for producing and supplying environment friendly products. The refinery developed a strategic road map for implementation considering both short and long term product quality mandates in line with Auto fuel policy. As a first step, the refinery commissioned Refinery Modernisation Project (RMP), consisting of Integrated Crude / Vacuum Distillation units, Hydrocracker, Hydrogen Generation and associated treatment facilities & revamped Catalytic Reforming Unit (CRU) for meeting the 2005 auto fuel quality mandates. Mumbai Refinery has also recently implemented Diesel Hydro Desulphurization revamp, new FCCU Gasoline splitting facilities, Hydrocracker revamp. The refinery has commenced production of Euro IV MS and HSD from February 2010 onwards.

Kochi refinery is implementing the Capacity Expansion-cum-Modernisation Project Phase–II (CEMP-II) to produce BS-III / IV MS and HSD. The project was expected to be completed by Dec 2009. However, due to delay is supply of critical equipment by BHEL, the project is now expected to be mechanically complete by June 2010. The project has achieved an overall progress of 91.83%. The implementation of the project is in accordance with the stipulations mentioned in the Auto Fuel Policy.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.17 (Para No.5.17)

The Committee find that the Private Sector Oil Companies have made substantial exports of petroleum products and negligible imports vis-à-vis Public Sector Companies during the last three years. These Companies are exporting/importing in accordance with the EXIM Policy. As per the current EXIM Policy, export of petroleum products is free except for Kerosene and LPG for which export is allowed subject to obtaining of a No-Objection Certificate from the Ministry of Petroleum and Natural Gas. Thus, while some restriction has been imposed on export of LPG and Kerosene, no such restriction is in place for export of other petroleum products. Since there have been shortages of petrol/diesel at some places from time to time, the Committee feel that there is a need to put similar restriction on the export of petrol and diesel by the Private Companies to effectively tackle such situations.

Reply of the Government

Presently there are three refineries in private sector, out of which two belong to Reliance (RIL) and one to Essar. The second refinery of RIL is set up under SEZ and has to export the products as per the SEZ policy. The first refinery of RIL also had the status of EOU till March 2009 and accordingly, had to export the products as per the EOU policy. The products from Essar refinery are available for domestic sale. Consequent to cessation of EOU status of first RIL refinery, its products are also now available for domestic sale. PSU Oil Marketing Companies (OMCs) can source the products from both these refineries.

Presently, the PSU OMCs are importing Petrol and Diesel mainly of high quality to meet the specified fuel quality standards as the domestic production of these grades of fuels is not adequate to meet the requirements. The Petrol and Diesel exported by PSU refineries is of inferior quality which cannot be supplied in domestic market.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

CHAPTER IV
RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

RECOMMENDATION Sl.No.6 (Para No.5.6)

The North-East Refineries are having uneconomic operations due to a number of factors like limited demand, limited crude availability, sub-economic size, locational disadvantage, etc. The Committee have been informed that to support their operations, the Government has taken some pro-active measures like supply of Ravva crude to BRPL, excise duty concessions to these Refineries, etc. However, these efforts have not proved enough to enable the North-East Refineries to overcome the problem of lower capacity utilization. In the opinion of the Committee, the capacity utilization of these refineries can go up if crude oil production in the region is enhanced. The Committee, therefore, desire ONGC and OIL to redouble their efforts in enhancing the crude production in the North-East. The Committee also desire that in order to improve the economic viability of the North-East Refineries, the supply of Ravva crude to BRPL should be increased from the present level of 1.5 MMTPA to 2.5 MMTPA until the commissioning of the Diesel Hydro Treating (DHT) facilities in the refinery. The Committee further recommend that 100% excise duty concession should be granted to these Refineries instead of the existing 50% until the time these Refineries become profitable.

Further, the Committee have been informed that there would be an overall increase of Rs.239 crore in GRM for NE refineries in the post-DHT scenario with 100% capacity utilization. The Committee recommend that the Government should enhance the capacity of BRPL to further add to the profitability, provided it is economically viable to export the surplus petroleum products generated from the refinery through Haldia and other ports.

The Committee have further been informed that a joint study by PPAC, CHT and oil companies is in progress for optimization of capacity utilization of North-East Refineries. The Committee desire that the said study should be completed in a time bound manner and its recommendations should be scrupulously implemented.

REPLY OF THE GOVERNMENT

ONGC has reported that the crude oil production from Ravva field is presently around 30200 BOPD and cumulative oil production for the financial year 2009-10 is espected to be of the order 1.61 MMT of an average rate of 33000 BOPD. For the year 2010-11, crude oil production from Ravva is projected to be around 1.44 MMT at an average oil rate of 29500 BOPD. The entire estimated crude production has been nominated to IOCL (Bongaigaon) Refinery.

In order to enhance crude production from the ageing Ravva field, JV is planning to drill 5 additional wells in the year 2010-11. Simultaneously, JV is also in the process of acquiring 4 D seismic survey for identification of leftover/ undrained oil. On the basis of Seismic, further infill drilling plan will be drawn.

OIL is maintaining the increasing trend in crude oil production, which is anticipated to be about 3.57 MMT during 2009-10.

Initially, Numaligarh Refinery (also known as the 'Assam Accord' Refinery) was granted 100% Excise Duty exemption, as part of the North East Industrial Policy. The other three refineries of North East were getting only 50% Excise Duty relief. However, this special benefit to NRL was withdrawn in March 2002 and since then, the four refineries in the North-East have been getting the benefit of only 50% relief in Excise Duty. The issue of restoration of 100% Excise Duty concession to NRL was taken up in the 2002 by the then Minister (P&NG) with the then Finance Minister and Prime Minister.

The matter was reviewed in MoP&NG in July 2004 and with the approval of the then Minister (P&NG), it was decided that in view of the improved performance of Assam refineries, including NRL, the issue of restoration of 100% Excise Duty exemption to NRL need not be pursued further with the Ministry of Finance. On this basis, the then Minister (P&NG) had also sent a reply to the Working Chairman of the North East MPs' Forum. Since then, the 50% Excise Duty concession to the North East Refineries, including NRL, has been continued.

The Budget proposals presented in the Lok Sabha on 26.02.2010 have further extended the 50% Excise Duty concession for the North East refineries for 2010-11.

The Committee on 'Optimization of Capacity Utilization of North-East Refineries' has submitted its report in July 2008. The main observations/ recommendations of the Committee are as follows:

e) Processing of imported crude oil by BRPL refinery would result in loss due to high landed cost of imported crude oil.

f) Existence of limited demand of petroleum products in the North-East (NE) region and the additional cost involved in movement of products outside the region pose serious constraints against fuller utilization of capacity of the NE refineries.

g) Stable growth in crude oil production in the NE holds the key to the optimisation of capacity utilization of NE refineries. ONGC and OIL should work out Action Plan to augment crude oil production in NE region.

h) The Government of Assam is levying entry tax on crude oil, which is a major factor in escalating the cost of crude oil which in turn affects the profitability of NE refineries. The matter may be taken up with Assam Government for abolition of the entry tax.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

Comments of the Committee

(Please see para 7 & 8 of Chapter I of the Report)

RECOMMENDATION Sl.No.20 (Para No.5.20)

The Public Sector Refineries are undertaking various Community Development activities in and around the areas where these refineries are located. These activities are concentrated on three focus areas viz., Clean Drinking Water, Health & medical Care and Expansion of Education. A glance at the expenditure details of these refineries during the last 5 years reveals that the expenditure incurred by the BPCL Kochi Refinery on such activities during 2007-08 has gone down drastically to Rs.182 lakhs from Rs.578 lakhs in 2006-07. Again, the expenditure incurred by the Numaligarh Refinery Limited during 2006-07 (Rs.30.06 lakhs) and the HPCL Vishakhapatnam Refinery during 2007-08

(Rs.14.06lakhs) are significantly lower as compared to the remaining 4 years. The Committee desire to be apprised of the reasons for low expenditure by these companies on such activities. The Committee recommend that adequate amount should be spent by the oil refining companies on Community Development activities. The Committee further recommend that the Government should consider the feasibility of laying down certain guidelines for the Private Sector Oil Companies also for carrying out Community Development activities.

Reply of the Government

BPCL

Kochi Refinery has initiated Major Community Development activities in FY 07/08 which are being undertaken through the local self governments and are in different stages of its implementation and may reach its completion in the next two years. The payments are being released stage-wise, based on completion of each stage.

From 2008-09 onwards, the CSR budget of the corporation has been increased from 0.5% to 2% of the net profit of the company during the previous financial year.

HPCL

The expenditure incurred during last five years, under Special Component Plan/ Tribal Sub Plan & Welfare Plan for Weaker Section by Mumbai refinery (MR) & Vishakhapatnam refinery (VR) is as under:

(Rs.in Lakhs)

MAIN ACTI	EXPENDITURE INCURRED										Amount approved for 2009-10	
	2004-05		2005-06		2006-07		2007-08		2008-09			
	MR	VR	MR	VR	MR	VR	MR	VR	MR	VR	MR	VR
Primary Education	22.15	9.61	48.11	30.53	18.00	12.86	18.35	-	29.15	-	32.58	6.40
Scholarships for Gradu Grad. Studies	-	8.46	-	9.79	0.86	12.00	9.58	14.06	14.59	9.72	16.80	-
Drinking Water Facilities	-	0.51	-	-	-	-	-	-	-	-	-	-
Health Care	-	10.25	-	16.57	-	2.53	0.68	-	0.90	35.83	0.57	-
Income Generating Schemes / Vocational Training	-	-	-	0.40		-	-	-	-	-	-	-
Rehabilitation of Persons with Disabilities	-	3.22	-	-	-	1.19	-	-	-	-	-	-
Other Welfare Activities	-	1.78	-	-	-	0.51	-	-	-	15.95	-	37.21

CSR - Unnati	-	-	-	12.60	-	12.60	-	14.16	-	30.00	-	10.00
CSR – Nanhikali	-	-	-	5.00	-	5.00	-	10-00	-	37.00	-	72.49
Other CSR Activities	-	-	-	-	-	-	-	-	-	35.00	-	18.00
TOTAL	22.15	33.83	48.11	74.89	18.86	46.69	28.61	38.22	44.64	163.50	49.95	144.10

IOCL

During the last three years, i.e. April 2006 to March 2009, an expenditure of Rs.1,019.94 lakhs was incurred on various community development activities undertaken by Refineries Division including Assam Oil Division. (Details are in enclosure-A)

Enclosure-A

Expenditure incurred by IOCL Refineries under Community Development Programme During the last 5 years

2004-05 (Rs. Lakhs)

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	3.60	3.00	14.75	2.30	4.64	3.60	0.10	0.00	0.00	**31.99**
Health & Medical Care	4.25	7.50	9.60	7.10	20.64	11.14	18.60	0.00	8.35	**87.18**
Expansion of Education	6.15	7.75	8.40	10.40	2.25	25.58	17.95	0.00	0.00	**78.48**
New Opportunities for youth	0.00	0.00	0.00	0.95	0.00	5.42	0.00	0.00	0.00	**6.37**
Others	11.97	13.25	10.25	0.25	0.00	1.24	0.00	0.00	0.00	**36.96**
Total	**25.97**	**31.50**	**43.00**	**21.00**	**27.53**	**46.98**	**36.65**	**0.00**	**8.35**	**240.98**

2005-06

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	2.27	6.51	8.50	3.34	8.70	11.20	6.50	0.00	0.00	**47.02**
Health & Medical Care	3.17	7.83	19.34	6.42	1.93	0.00	11.90	0.00	0.00	**50.59**
Expansion of Education	7.80	14.36	15.26	13.08	0.00	17.11	27.60	0.00	0.00	**95.21**
Others	15.66	6.00	0.00	0.00	8.53	8.56	0.00	0.00	0.00	**38.75**
Total	**28.90**	**34.70**	**43.10**	**22.84**	**19.16**	**36.87**	**46.00**	**0.00**	**0.00**	**231.57**

2006-07

Year 2006-07										
Activity	**G**	**B**	**J**	**H**	**M**	**P**	**AOD**	**PDRP**	**R-HQ**	**Total**
Clean Drinking Water	4.33	6.00	14.88	3.06	12.00	4.00	22.00	4.00	0.00	**70.27**
Health & Medical Care	7.06	7.50	7.87	5.34	2.25	20.62	10.55	3.90	0.00	**65.09**
Expansion of Education	5.18	3.51	19.97	19.25	12.75	19.65	22.45	2.00	0.00	**104.76**
Others	18.42	20.00	1.40	0.35	1.48	5.50	0.00	0.00	0.00	**47.15**
Total	**34.99**	**37.01**	**44.12**	**28.00**	**28.48**	**49.77**	**55.00**	**9.90**	**0.00**	**287.27**

Year 2007-08

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	1.12	6.50	10.00	7.25	10.48	6.30	13.04	8.51	0.00	**63.20**
Health & Medical Care	17.89	11.68	13.15	6.95	17.30	25.60	13.47	5.91	1.50	**113.45**
Expansion of Education	6.59	2.46	16.50	24.91	3.50	25.75	33.48	0.00	7.50	**120.69**
Others	41.53	12.80	5.00	2.91	7.73	17.01	0.00	0.00	0.00	**86.98**
Total	**67.13**	**33.44**	**44.65**	**42.02**	**39.01**	**74.66**	**59.99**	**14.42**	**9.00**	**384.32**

Year 2008-09

Activity	G	B	J	H	M	P	AOD	PDRP	R-HQ	Total
Clean Drinking Water	11.94	5.88	13.80	2.02	13.04	2.12	12.63	3.00	0.21	**64.64**
Health & Medical Care	18.47	6.90	3.60	5.10	3.77	16.40	16.05	5.90	0.00	**76.19**
Expansion of Education	20.03	3.30	4.90	20.53	1.50	16.83	34.32	3.10	1.50	**106.01**
Others	17.66	11.92	12.40	4.35	5.81	14.70	0.00	0.00	0.00	**66.84**
Total	**68.10**	**28.00**	**34.70**	**32.00**	**24.12**	**50.05**	**63.00**	**12.00**	**1.71**	**313.68**

Note : G : Guwahati Refinery, B : Barauni Refinery,
J : Gujarat Refinery, H : Haldia Refinery,
M : Mathura Refinery, P : Panipat Refinery,
AOD : Assam Oil Division, PDRP : Paradip Refinery Division.

Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)
Comments of the Committee
(Please see paras 13 & 14 of Chapter I of the Report)

CHAPTER V

RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

RECOMMENDATION Sl.No.3 (Para No.5.3)

The initial envisaged capacity of the Paradip Refinery in Orissa was 6 MMTPA. Subsequently, an MoU between the IOCL and the Government of Orissa was signed in 2004 for setting up of a 9 MMTPA grass-root refinery at this site. Again, in 2006, the IOCL decided to set up a Refinery-cum-Petrochemical complex at Paradip with a capacity of 15 MMTPA to improve the economic viability of the project. In the opinion of the Committee, the tendency to go in for frequent changes in the configuration of refinery projects and preparation of multiple feasibility reports needs to be avoided as the same leads to enormous avoidable delay, besides additional expenditure. The Committee, therefore, desire the oil companies to thoroughly study all aspects of a project such as augmentation of capacity, economic viability, etc. carefully in the beginning and thereafter, get one feasibility study conducted by a competent agency. Such a course of action would obviate the need for preparation of multiple feasibility reports and frequent changes in the capacity and other details of the project.

REPLY OF THE GOVERNMENT

Observations of the Committee have been noted by the oil companies for implementation of projects in future.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.9 (Para No.5.9)

The present capacity of the Barauni Refinery of IOCL is 6 MMTPA. The lower capacity of the refinery coupled with the absence of a Petrochemical Complex at the location is hampering its profitability. The Committee have been informed that there are constraints in expanding the capacity of this refinery. The major constraint lies in utilization of the products. Since Barauni is an inland refinery, it would become difficult to absorb the products in case its capacity is further expanded. The Committee desire that the capacity of the refinery should be expanded and the surplus petroleum products exported through the nearest

ports. As regards setting up of a Petrochemical Complex at this refinery, the Chairman of IOCL has assured the Committee to have the matter examined. The Committee would like the company to complete the study and intimate the outcome to the Committee at the earliest.

Reply of the Government

Indian Oil Corporation Limited has initiated several projects to improve the performance of Barauni Refinery in order to maintain its viability. As it is always economical to add/ create capacity at coastal locations for export of surplus products than to expand existing inland refinery for exports, further expansion of Barauni Refinery is not being pursued.

Regarding setting up of a Petrochemical Complex at Barauni, a Memorandum of Understanding (MOU) was signed between IOCL and GAIL on 31.10.2008 for exploring collaborative venture for the above project at Barauni and a feasibility study for setting up a Naphtha cracker and downstream polymer complex has been completed. The project envisages production of 1.1 MMTPA Ethylene with associated Propylene and other co-products. Since availability of Naphtha from Barauni refinery is not adequate to meet the estimated requirement of 2.6 MMTPA for the Petrochemical complex, the project envisages sourcing of Naphtha from IOC refineries at Haldia, Chennai and Paradip as well as from imports.

The Capital cost of the project is estimated at approximately Rs.22,500 crore. As per the financial analysis, the project is financially unviable primarily due to sourcing of naphtha from multiple locations and logistic costs for marketing the petrochemical products to distant demand centers. Improvement in the viability of the project will, inter-alia, require certain fiscal incentives from Central as well as State Government of Bihar. A joint letter from Chairman, IOC and C&MD, GAIL has been submitted to the Government of Bihar and a detailed presentation was also made to the Development Commissioner in Sept 2009. GAIL is the nodal coordinator for the project and the matter is being pursued by it with the State Government of Bihar.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

RECOMMENDATION Sl.No.18 (Para No.5.18)

The Operational Benchmarking of our refineries has been carried out through an international agency viz. M/s Shell Global Solutions International, Netherlands in respect of the years 2003-04 and 2004-05. The Committee have been informed that a significant gap of 400 million US dollars in Energy and Asset Management areas has been identified in the various refineries and that in order to bridge this gap, an Integrated Refinery Business Improvement Programme has been introduced from January 2007 at four refineries viz. BPCL-Kochi, IOCL-Mathura, CPCL-Manali and HPCL-Vishakhapatnam. They have further been informed that a number of projects are being implemented in these refineries with a combined return potential of 75 million US dollars per year. The Committee would like to know the actual return achieved so far as a result of implementation of these projects. They recommend that these projects should also be introduced in other potential refineries of the country in order to improve their bottomlines.

Reply of the Government

IOCL

Total projected benefits from the identified Proposals for Implementation (PFIs) is US$ 16.4 million, i.e. Rs.73.2 crore per annum on recurring basis (1USD=Rs 44.68). Till January 2010, 7 nos. of PFIs have been implemented and the balance 9 nos. of PFIs have been dropped with mutual agreement as those are found not economically viable. The actual benefits from these 7 PFIs work out to be US$ 6.32 million, i.e. Rs.28.2 crore/annum on recurring basis. The summary status of various recommendations is as under:

Sl. No.	Attribute	Value
6.	PFIs identified for implementation (nos.)	16
7.	Estimated benefit (Million US$ / year)	16.4
8.	PFIs implemented (nos.)	7
9.	Benefits achieved (Million US$/ year)	6.32
10.	PFIs dropped (nos.)	9

CPCL

CPCL-Manali had taken up 12 Proposals for implementation. Out of this, 8 proposals have been implemented with net benefit value of 4.697 million per year.

The remaining 4 proposals with an estimated value of US$11.047 million are under implementation and scheduled for completion by November 2010.

HPCL

M/s Shell Global had carried out the Vishakhapatnam Refinery performance review in three major areas, **Margins, Energy and Reliability**. After the initial discussion, more than 550 ideas were generated for improving the Refinery performance. However, after assessing of each proposal during assessment phase, 23 PFIs were finalized.

The approved PFIs, after successful implementation, are expected to give the benefits of approx. US$ 35.56 million, which is about 51.53 cents per barrel with Capex involved of US$ 1.989 million.

Out of 23 approved PFIs, 14 PFIs have been implemented and accruing the benefits of US$ 14.52 million / year (21.01 cents/ bbl). The remaining approved PFIs are under various implementation stages.

BPCL BPCL-Kochi Refinery was selected as one of the four refineries to undergo the IRBIP by CHT and M/s. Shell Global Solutions. Out of 20 Proposals for Improvement (PFI's), having a net benefit value of US$ 19 million per annum (Rs.86.2 crore per annum @ Rs.45.4/US$), accepted for implementation, 17 PFI's with a net benefit value of US$ 18.43 million per annum have been implemented. Of these, 7 proposals with a net benefit value of US$ 3.44 million per annum (Rs.15.6 crore per annum) have been audited and closed. Out of the balance 13 proposals, implementation of 10 proposals have been completed and are being audited for closure. Recommendation is awaited from M/s. Shell GSI for one proposal and 2 proposals with a net benefit value of US$ 1.17 million per annum have been dropped due to technical / economic / safety reasons.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

Comments of the Committee
(Please see para 11 of Chapter I of the Report)

RECOMMENDATION SI.No.19 (Para No.5.19)

The BPCL Kochi Refinery has developed a rainwater reservoir facility at its premises. The Committee have been informed that the company is collecting around 1,25,000 KL of water during the monsoon season. Besides harvesting the rainwater fall on the land area of its tank farm, the BPCL Kochi Refinery is also processing water from the roof of four buildings located at the process unit area, which is being used for all purposes including drinking. Apart from the BPCL Kochi Refinery, IOCL Refineries at Gujarat, Panipat, Mathura and Digboi, MRPL and HPCL-Vishakhapatnam Refinery have also developed rainwater harvesting facilities. The Committee appreciate the initiative taken by these companies. However, they are unhappy to note that some other refineries like IOCL Refineries at Guwahati, Barauni, Haldia and BRPL have not yet developed the facility in their premises. The Committee recommend that these companies should also take the initiative to develop such a facility at the earliest. Though some initiative has been taken by CPCL to harvest rainwater at the tank form to improve the ground water level, there is no separate reservoir for collecting the rainwater. The Committee desire the company to go in for a full-fledged development of rainwater harvesting facility in its premises.

Reply of the Government

IOCL

In Barauni Refinery, one recharge well has been completed and it will be put on trial in the next monsoon. In Gujarat refinery, in addition to 7 recharge wells in the refinery township set up in 2005, 5 more recharges well have been set in the township in June 2009. Haldia refinery has also commissioned a facility for rain water conservation in June 2009. A common guard pond of 11000 m^3 has been created where all the storm water is routed for reuse. Rain water harvesting facilities are also in operation in IOC refineries at Mathura, Panipat and Digboi.

CPCL

Rainwater collected from process units area is handled by Contaminated Rain Water System (CRWS). CRWS consist of collect pit, Transfer facility to treatment unit and storage pond for treated water. The treatment is carried out by processing through Tilted plate interceptor and dual media filter before routing to treated water pond.

Rain water collected from areas other than process units is getting collected in three number of storm water ponds with total capacity of 55000 kl. The water collected from the above facilities are utilized for Fire water, Cooling water and also as feed to Ultra filtration/Reverse Osmosis units.

(Ministry of Petroleum and Natural Gas O.M. No. R-37011/7/2008-OR.II dated 23rd March, 2010)

New Delhi;
15 November, 2010
24 Kartiaka,1932 (Saka)

V. ARUNA KUMAR,
Chairman,
Standing Committee on Petroleum & Natural Gas.

ANNEXURE I

MINUTES OF

STANDING COMMITTEE ON PETROLEUM & NATURAL GAS (2010-11)

SECOND SITTING (9.11.2010)

The Committee sat on Tuesday, the 9th November, 2010 from 1000 hrs. to 1015 hrs. in Committee Room "C", Parliament House Annexe, New Delhi.

PRESENT

Shri Aruna Kumar Vundavalli - Chairman

MEMBERS

Lok Sabha

2 Shri Anandrao Adsul
3 Smt. Santosh Chowdhary
4 Dr. Ratna De
5 Shri Maheshwar Hazari
6 Shri Gorakh Prasad Jaiswal
7 Shri Virendra Kumar
8 Shri Vikrambhai A. Madam
9 Dr. Thokchom Meinya
10 Shri Kabindra Purkayastha
11 Shri C.L. Ruala

Rajya Sabha

12 Shri Silvius Condpan
13 Shri Tapan Kumar Sen
14 Prof. Ram Gopal Yadav
15 Smt. Gundu Sudharani
16 Shri Sabir Ali

Secretariat

1.	Shri J.P. Sharma	-	Joint Secretary
2.	Smt. Anita Jain	-	Director
3.	Shri J.V.G. Reddy	-	Additional Director
4.	Shri Arvind Sharma	-	Deputy Secretary

2. At the outset, the Hon'ble Chairman welcomed the Members to the sitting of the Committee.

3. Thereafter, the Committee took up for consideration the draft Action Taken Report on the recommendations contained in the 23rd Report (14th Lok Sabha) on the subject 'Oil Refineries – A Critique'. After some discussion, the Committee adopted the draft Action Taken Report with minor modification.

4. The Committee authorised the Chairman to finalise the Report in the light of modifications and make consequential changes, if any, arising out of the factual verification of the Report by the Ministry and present the same to both the Houses of Parliament.

The Committee then adjourned.

ANNEXURE II

(*Vide* Para 4 of the Introduction)

ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE RECOMMENDATIONS CONTAINED IN THE TWENTY-THIRD REPORT (14TH LOK SABHA) OF THE STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS (2009-10) ON 'OIL REFINERIES – A CRITIQUE'.

I	Total No. of Recommendations	20
II	Recommendations/Observations which have been accepted by the Government (*Vide* Recommendations at Sl. Nos. 1, 2, 4, 5, 10, 11, 12, 15 and 16)	9
	Percentage to Total	45%
III	Recommendations/Observations which the Committee do not desire to pursue in view of Government's Reply (Vide Recommendations at Sl. Nos. 7, 8, 13, 14 and 17)	5
	Percentage of Total	25%
IV	**Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee** (*Vide* Recommendations at Sl. Nos. 6 and 20)	2
	Percentage of Total	10%
V	Recommendations/Observations in respect of which final replies of the Government are still awaited (*Vide* Recommendations at Sl. Nos. 3, 9, 18 and 19)	4
	Percentage of Total	20%