CHAPTER XIV: MINISTRY OF PETROLEUM AND NATURAL GAS

Bharat Petroleum Corporation Limited

14.1.1 Idle investment on construction of Naphtha pipeline

Bharat Petroleum Corporation Limited laid five pipelines for evacuating products from Chennai Petroleum Corporation Limited under a product marketing agreement. The pipeline laid for the evacuation of Naphtha at a cost of Rs.4.28 crore remained unutilised since its commissioning (March 2001).

Bharat Petroleum Corporation Limited (Company) entered into an agreement (July 1999) with Chennai Petroleum Corporation Limited (CPCL) for marketing their products during August 1999 to July 2009. The Company initially used the existing pipelines of Indian Oil Corporation Limited (IOCL) for evacuation of CPCL products. CPCL planned to augment its capacity from 6.5 to 9.5 MMT *per annum* (MMTPA) by 2002-03. Therefore, the Company considered it necessary to lay five product pipelines – one each for Motor Spirit, Aviation Turbine Fuel, Middle Distillates, Black Oil and Naphtha from CPCL to its Tondiarpet installation at an estimated cost of Rs.38 crore. The Company justified (December 1999) laying of pipelines on the grounds that it was essential to have total control on product evacuation in a de-regulated scenario and to function independently. The project was scheduled for completion by March 2000.

Audit scrutiny (March 2006) revealed that construction work of five pipelines from CPCL to Tondiarpet installation (4.5 kilometers) commenced in May 2000 and was completed in March 2001 at a cost of Rs.23.26 crore. Immediately thereafter, IOCL took over CPCL in April 2001 and the agreement between CPCL and the Company for the marketing rights became inoperative. While the Company was utilising^{*} four of the five newly constructed pipelines, the pipeline laid at a cost of Rs.4.28 crore for evacuation of Naphtha remained unutilised till date (September 2007). Besides, the proportionate lease rent for the Right of Way (ROW) on Railway's land for the Naphtha pipeline amounted to Rs.1.77 crore for the period 2001-02 to 2006-07.

The Management stated (August 2006) that the product pipelines were laid to enable independent functioning in a de-regulated scenario. The handing over of the marketing rights of CPCL to IOCL was a sudden decision of the Ministry not envisaged by the Company. They further added that discussion with IOCL regarding transfer of the Naphtha pipeline was in an advanced stage and in the event of handing over of the pipeline to IOCL, lease rent pertaining to ROW for Naphtha pipeline will also be borne by IOCL.

The reply was not tenable as the CPCL planned capacity expansion from 6.5 to 9.5 MMTPA by 2002-03 as such there was no urgency in augmenting the pipeline capacity

^{*} Both for its own use as well as for other marketing companies

two year in advance *i.e.*, by March 2001.Moreover, the Company was aware (December 1999) of IOCL's move to acquire CPCL. As such there was uncertainty regarding the future of the marketing rights. Considering these factors and that the estimated completion time of the project was only three months after obtaining the ROW from Railways, the Company could have deferred the investment decision till the issue of CPCL takeover was settled.

Thus, the decision of laying all the five pipelines without considering the material facts led to creation of idle capacity. IOCL has its own network of pipelines and even six years after creation of the pipeline capacity, the Company is yet to identify alternative use for the idle Naphtha pipeline. Though discussions with IOCL were stated (August 2006) to be in an advanced stage, no decision had emerged till September 2007. In the meantime, the Naphtha pipeline remains idle resulting in an unproductive expenditure of Rs.4.28 crore besides the annual payment of lease rent for ROW to Railways.

The matter was reported to the Ministry in June 2007; reply was awaited (November 2007).

Chennai Petroleum Corporation Limited

14.2.1 Avoidable expenditure due to supply of Naphtha that did not comply with the buyers specifications

Delay in drawing the sample from the storage tank and not testing the contents of the pipeline by Chennai Petroleum Corporation Limited resulted in supply of Naphtha to the buyer that did not comply with specifications. The buyer rejected the consignment resulting in avoidable expenditure of Rs.2.97 crore on transportation.

Chennai Petroleum Corporation Limited (Company) was supplying Naphtha through a dedicated pipeline from its refinery to Indian Oil Corporation Limited (IOCL) terminal at Korukkupet. From the terminal, the product was pumped through common white oil pipeline after flushing the line to remove the product pumped earlier. As per practice in vogue, the pipeline dedicated for Naphtha was not flushed before or after completion of each pumping and hence it always contained 1,184.910 Kilolitres Naphtha.

Before pumping any petroleum product, the Company prepared batches by drawing samples from the product tanks and tested the same for compliance to the specification of the product itself and also to the customers' requirement. The methods of drawing samples and their testing were as per the standards published by the Bureau of Indian Standards, wherever applicable.

The Company pumped a parcel of 14,000 MT of Naphtha from the batches 1,345 and 1,346 between 13 and 15 February 2005 for loading into the tanker M.T. Basaweshwara for onward supply to Southern Petrochemical Industries Company Limited (SPIC), Tuticorin. In the quality control test report of these batches the parameter Residue on Evaporation (ROE)/Non-volatile Matter (NVM) was reported as 2.8 milligram (mg) *per* 100 millilitre (ml) as against the specification of five mg *per* 100 ml required by SPIC.

Audit scrutiny (August 2006) revealed that the sample for the ROE/NVM test was drawn at 0700 hours on 12 February 2005 *i.e.*, 13 hours after completion of the circulation of Naphtha (1800 hours, 11 February 2005). The prescribed gap was of two hours as per instructions of Chief Manager Operations, Maintenance and Systems. The loading was completed on 16 February 2005 and the tanker M.T. Basaweshwara sailed for Tuticorin. A sample of Naphtha drawn from the ship was tested on the same day at Regional Laboratory, IOCL Korukkupet and it was found to not meet the required specification of ROE/NVM ordered by the buyer. It was off-loaded and held in IOCL's Tuticorin terminal as SPIC refused to accept the same. IOCL could not sell the off-specification Naphtha other than 4,472 MT taken to its Kochi terminal and it asked (April 2005) the Company to take back the balance quantity. Accordingly, IOCL returned (May 2005) 8,937 MT of Naphtha and the Company re-blended (May 2005) and sold it. In this process, the Company incurred an expenditure of Rs.2.97 crore on transportation to and from Tuticorin.

The Ministry stated (September 2007) that higher ROE/NVM content was due to heavy Naphtha produced from 'Once through Hydro Cracker Unit' (OHCU) at the time of its guaranteed test run (GTR). It further added that pump had suction strainer problem two or three days before the tanker discharge and such incidents were normal with respect to pump functioning. The sample sent to lab was not representative and high ROE/NVM was not reflected in the final analysis, as homogeneity of the stock was not established. However, on the sale of the blended Naphtha, there was additional revenue due to increased price in May 2005 which set off the extra transportation cost.

The reply of the Ministry was not tenable as despite the Management being aware of the fact that pump used for circulation was malfunctioning, sample for the ROE/NVM test was drawn 13 hours after completion of circulation of Naphtha against the prescribed limit of two hours. Thus, the Management did not take due care while drawing sample for testing. Moreover, the Company besides testing the product in the storage tank neither tested the contents in the pipeline nor the output from OHCU during GTR to ensure compliance to specification regarding ROE/NVM. Realisation of higher revenue in May 2005 due to price increase was a matter of chance and cannot be accepted as a justification for the avoidable expenditure.

Thus, the Company's failure to draw sample within the prescribed time and test the product in pipeline before dispatch resulted not only in failure to assure quality but also an avoidable expenditure of Rs.2.97 crore.

14.2.2 Avoidable expenditure

Failure to reduce the contracted demand resulted in avoidable expenditure of Rs.1.22 crore towards demand charges.

Tamil Nadu Electricity Board's high tension (HT) power tariff stipulates that every HT consumer pay demand charges to the extent of 90 *per cent* of contracted demand or the actual established demand whichever is higher (Billing demand). In the event of actual demand exceeding the contracted demand, the consumer has to pay penal charges on the quantum of demand that exceeded the contracted demand.

Chennai Petroleum Corporation Limited (Company) had contracted for a maximum demand of 4,000 KVA¹ since inception for its Cauvery Basin Refinery (CBR). The Company reduced the demand to 3,250 KVA in July 1995 in view of installation of captive power plant of 4.7 MW² (commissioned in 1996-97). Thereafter, the Company reviewed its requirement in January 2000 and July 2001 but retained the maximum demand at 3,250 KVA.

Audit reviewed the monthly bills of CBR in respect of high-tension service connection No.27 for the period from April 2004 to March 2007 and found that the recorded demand ranged between 580 and 2,000 KVA except in May 2004, January 2007 and February 2007. The actual demand exceeded 1,000 KVA only in 10 out of 36 months during 2004-05 to 2006-07. However, the Company paid demand charges for 2,925 KVA being the billing demand (90 *per cent* of contracted demand) during the entire period despite operation of the captive plant for meeting bulk of its power requirement.

In view of the installed capacity of the captive power plant and the past experience in the actual recorded demand, the Company did not reduce its contracted demand from 3.250 KVA to 2000 KVA and thereby avoid payment of demand charges of Rs.1.22 crore³ reckoned at Rs.300 *per* KVA on the differential billing demand of 1,125 KVA⁴ for three years from April 2004 to March 2007.

The Ministry stated (October 2007) that maximum demand was reduced from 4,000 KVA to 3,250 KVA in July 1995 in view of installation of captive power plant of 4.7 MW. Power requirement was reviewed and contracted maximum demand of 3,250 KVA was kept to meet power requirement in the event of shutdown of the captive power plant. It further added that considering the present operating level of the refinery at 0.6 MMTPA, it had now been decided to reduce the contracted demand from 3,250 KVA to 2,750 KVA.

The reply was not tenable as CBR was not operated at full capacity in any of the last five years ended March 2007 for want of crude of required quality. Further, even if the reduction of maximum demand to 2,750 KVA is taken into account, CBR had already foregone savings in expenditure of Rs.58.05 lakh⁵ during April 2004 to October 2007. Since operations of the refinery are pegged at 0.6 MMTPA, it is again necessary to review the proposed reduction of the contracted demand from 3,250 KVA to 2,000 KVA as reducing it to 2,750 KVA would entail recurring extra expenditure of Rs.2.02 lakh⁶ per month.

Thus, the Company's failure to reduce the contracted demand based on past consumption pattern resulted in avoidable expenditure of Rs.1.22 crore.

¹ Kilo Volt Ampere

² Mega Watt

 $^{^{3}}$ Rs.1.22 crore = 1125x300x36 months

⁴ 1,125 = 2,925 (90 per cent of 3,250) less 1,800 (90 per cent of 2,000)

⁵ Rs.58.05 =450 x 300 x 43, 450 = {2,925 (90 per cent of 3,250) less 2,475 (90 per cent of 2,750)}

⁶ Rs.2.02 lakh = 675 [(2,475(90 per cent of 2,750) less 1,800 (90 per cent of 2,000)]x300

GAIL (India) Limited

14.3.1 Wasteful expenditure on Liquefied Petroleum Gas marketing activities

GAIL (India) Limited incurred an expenditure of Rs.3.07 crore on Liquefied Petroleum Gas marketing activities before the issues relating to the conditions attached to the Ministry's approval to the same were resolved. Due to non-viability of the conditions, the permission was finally withdrawn rendering the expenditure of Rs.3.07 crore wasteful.

GAIL (India) Limited (Company), engaged in the production of Liquefied Petroleum Gas (LPG) from Natural Gas, sought the approval of the Ministry of Petroleum and Natural Gas (Ministry) for venturing into the activity of direct marketing of LPG, which was being done by Oil Marketing Companies^{*}. The Ministry conveyed (February 2005) its approval for marketing of LPG by the Company, Oil and Natural Gas Corporation Limited (ONGC), and Reliance Industries Limited with effect from 1 April 2006 subject to the condition that the sale of bulk LPG would not be more than 20 *per cent* of the total sale of LPG by the Company. In August 2005, the Ministry made the permission operative with immediate effect.

While the operational modalities for functioning of the new entrants in LPG marketing were under consideration of the Ministry, the upstream companies were asked to prepare (October 2005) specific proposal on the ratio of domestic and non-domestic sale (bulk sale to the industrial and commercial sector) of LPG to be adhered to by the new entrants. In response the Company proposed a ratio 15:85 for LPG sales in domestic and non-domestic sector for new entrants. The Company's proposal was based on the rationale that the Ministry would not intend to allow subsidy to the new entrants on the domestic segment and the Company wished to sustain the under-recoveries in the domestic segment from bulk sales, which was a profitable segment. ONGC also proposed to market its entire share to bulk consumers. The suggestion of the Company and ONGC was not accepted by the Ministry and the Government ultimately withdrew the permission for direct marketing of LPG by upstream companies in January 2006, till further advice.

It was observed in Audit (October 2006), that before the Company had comprehensively examined the viability of the scheme and the modalities of its operations were firmed up by the Ministry, it incurred an expenditure (upto January 2006) on the appointment of marketing consultant and hiring business experts (Rs.2.09 crore), payment of salaries, perquisites and providing training for five executives recruited for LPG marketing including recruitment expenditure (Rs.0.83 crore) and overseas visits for techno commercial discussion (Rs.0.15 crore) aggregating Rs.3.07 crore which was rendered wasteful due to withdrawal of the permission by the Ministry.

The Management stated (June 2007) that the matter was taken up with the Ministry to review its earlier decision but after examination of the operational issues relating to LPG marketing by new entrants the Ministry decided not to expand the list of existing LPG

^t Indian Oil Corporation Limited, Bharat Petroleum Corporation Limited and Hindustan Petroleum Corporation Limited

Marketing Companies. The Management added that the benefit of expenditure incurred on formation of LPG marketing strategy would be derived as and when the GOI decides to allow the Company to market LPG directly.

The Ministry stated (October 2007) that the Company was not ready to do LPG marketing in the expected proportion that would have resulted in reduction of subsidy burden of the Government. It was, therefore, decided not to expand the list of existing Companies marketing LPG till further advice.

The reply of the Management was not tenable. As the conditions attached to the Ministry's approval had financial implications, the Company should not have incurred or committed the expenditure on LPG marketing activities before resolution of the related issues. Under the same circumstances ONGC did not incur any expenditure on LPG marketing activities. Further, the permission having been withdrawn by the Ministry, the Company is unlikely to reap any benefit out of the consultancy and techno-commercial expenditure incurred by it at a later date in view of the dynamic nature of the market.

Thus, the Company incurred wasteful expenditure of Rs.3.07 crore on the LPG marketing activities in haste despite being aware that it was not feasible to comply with the conditions laid by the Ministry.

14.3.2 Loss of interest

The Company suffered a loss of interest of Rs.1.13 crore by keeping funds during March 2006 to March 2007 with SBI at a lower rate of interest as compared to other banks.

GAIL (India) Limited (Company), was operating non-interest bearing current account with (i) State Bank of India (SBI) since its inception in 1984 where collections of the Company were deposited and (ii) HDFC Bank since May 2002, which basically serviced employee's salary accounts. For earning interest on amounts lying idle in its current account, the Company opened an interest-bearing Corporate Liquid Term Deposit (CLTD) account with SBI in September 2002. Under this arrangement, daily closing balances in the non-interest bearing current account in excess of a minimum balance of Rs.50 lakh were transferred to CLTD account that earned an interest at the rate of three *per cent per annum* for 7 to 14 days and five *per cent per annum* for 180 days to less than one year.

In February 2003 the Company opened a current account with ICICI Bank for servicing employee's salary accounts and took up the matter (2004-05) with HDFC and ICICI banks to get a product similar to CLTD account operated in SBI.

HDFC offered (July 2005) a similar product with rate of interest of NSE MIBOR^{*} quoted on the Reuters for that particular day less 0.25 *per cent* applicable for seven days period on amounts in excess of Rs.50 lakh in multiples of Rs. one crore each. This worked out to 4.83 *per cent* (*i.e.*, 5.08 *per cent* less 0.25 *per cent*) at that time. ICICI also offered (July 2005) a similar product with a rate of interest of 4.65 *per cent per annum* for each single deposit of Rs. one crore or above for seven day period. The rates were subject to change.

^{*} National Stock Exchange Mumbai Inter Bank Offer Rate

As the rates offered by these banks were higher compared to those offered by SBI, the Company opened CLTD accounts (February 2006) with HDFC and ICICI and also requested SBI to increase the rates but could not get the matching interest rates from SBI. However, it continued to keep funds upto Rs.120.95 crore in CLTD account with SBI at a lower rate as compared to the rates offered by ICICI and HDFC. Consequently, during the period March 2006 to March 2007, the Company earned an average rate of interest of 8.11 *per cent* (in case of HDFC) and 6.23 *per cent* (in case of ICICI) whereas it earned average rate of 3.32 *per cent* from surplus funds invested with SBI resulting in loss of interest of Rs.1.13 crore^{*}.

The Management stated (March 2007/July 2007) that sufficient funds had to be kept at SBI as 78 *per cent* of all the payments were met through SBI. They took up the matter with SBI on regular basis for increasing the rate of interest resultantly SBI increased the rates from 3 *per cent* to 3.5 *per cent* from 23 August 2006 and to 3.75 *per cent* from 11 December 2006.

The reply of the Management was not tenable. If SBI was not agreeable to match its interest rates with those offered by other banks, the surplus funds that were kept by the Company in CLTD account with SBI after meeting the operational requirements could have been transferred to CLTD account with HDFC/ICICI after assessing the future requirements on weekly basis to earn better interest. To meet the unforeseen exigencies for meeting payments to remote locations, the funds could be transferred through RTGS system for which ICICI charged only Rs.320 *per* transaction.

Thus, by keeping surplus funds in CLTD account with SBI at a lower rate of interest the Company suffered a loss of Rs.1.13 crore during March 2006 to March 2007.

The matter was reported to the Ministry in June 2007; reply was awaited (November 2007).

Hindustan Petroleum Corporation Limited

14.4.1 Unproductive payment of incentive

Inapt implementation of a new incentive scheme on the basis of performance already attained by the employees and paid for under an existing incentive scheme led to avoidable payment of unproductive incentive of Rs.76.26 crore.

The Government of India introduced productive incentive (PI) scheme for payment of incentive to the employees of Hindustan Petroleum Corporation Limited (Company) in 1983. The amount of incentive payable on attainment of specific milestones as per applicable parameters of the scheme was subject to ceilings for two categories of the employees *viz.*, (i) employees eligible for profit sharing bonus and (ii) employees not eligible for such bonus. The Company introduced another incentive scheme *viz.*, Performance Linked Incentive (PLI) scheme in January 1991 for the employees who

^{*} Calculated on a conservative basis by reducing Rs. one crore from the amounts kept and matured in CLTD account with SBI to allow for the float in the account with the ICICI/HDFC. The lower of the rates offered by ICICI and HDFC banks had been used.

were not eligible for profit sharing bonus. With effect from 1 January 1997, the Department of Public Enterprises (DPE) increased the limit for payment of performance linked incentives to 50 *per cent* of the basic pay and five *per cent* of the distributable profit of the PSE.

In April 2006, the Company decided to introduce a third incentive scheme *viz.*, Performance Related Incentive (PRI) scheme from the financial year 2004-05, retrospectively. The PRI scheme was justified on the grounds that the amount of incentive payable to the employees under the existing two incentive schemes was well within the ceilings prescribed by the DPE and a new and third (PRI) scheme could be introduced within the existing ceilings.

The new scheme envisaged distribution of PRI on the basis of performance of Strategic Business Unit (SBU) at first level. Incentives for team performance for all the employees was envisaged at second level. For payment of incentive for the years 2004-05 and 2005-06 under the PRI scheme, the Company adopted the parameters that were applicable for the PI scheme and disbursed Rs.16.30 crore and Rs.16.50 crore for 2004-05 and 2005-06, respectively to the employees. On finding that the said limit of 50 *per cent* had not been exceeded in the year 2002-03 and 2003-04 also, the Company decided in October 2006 to implement the PRI scheme further back in time from 2002-03 onwards. Again, the parameters applicable to the PI scheme for those years were applied and incentive of Rs.19.55 crore and Rs.23.91 crore for the year 2002-03 and 2003-04 respectively was paid under the new PRI scheme. Thus, an aggregate amount of Rs.76.26 crore was paid as incentive under the newly implemented PRI scheme. Incentive for the year 2006-07 was yet (July 2007) to be paid.

Audit observed (March 2007) that:

- (i) Payment of incentive under PRI scheme by adopting the parameters applicable to the existing PI scheme was irregular since the objectives of introducing the PI and PRI schemes were different. Whereas the PI scheme was based on achievement of productivity by the employees individually, the PRI scheme envisaged payment of incentive on the basis of performance achieved by various SBUs against five clearly measurable criteria, to be approved by a Committee of Functional Directors (CFD) as a part of the first level performance. The second level performance applicable to all the employees envisaged adjudging performance of "intact teams" under major SBUs. Criteria specific to the objective of PRI scheme were not fixed by the CFD at any stage and, therefore, adoption of parameters and milestones of an existing incentive scheme for payment of incentive under the new scheme tantamount to releasing of double payment for the same performance by the employees and exceeding the ceiling prescribed under the PI scheme.
- (ii) Implementation of the scheme retrospectively cannot be expected to motivate the employees for better performance than what had already been achieved and rewarded. Thus, implementation of the scheme retrospectively resulted in payment of unproductive incentive.

The Management stated (March 2007) that the introduction of the PRI scheme had its genesis in the Justice Mohan Committee Report. While distribution of PRI effective

from the year 2006-07 among various SBUs would be carried out in line with their respective performance against targets, for the period prior to April 2006 *viz.*, 2004-05 and 2005-06, it could only be linked with parameters set against the then existing scheme *i.e.*, Productive Incentive. The new incentive scheme envisaged judging the performance of all major SBUs against targets set and the quantum of PRI was in line with DPE guidelines. It further stated that the Board approved (October 2006) implementation of PRI for 2002-03 and 2003-04 as PI was restricted to 15 *per cent* as per DPE guidelines. The Ministry while endorsing (August 2007) the reply of the Management justified payment of new incentive with retrospective effect stating that the Petroleum Sector was liberalised effective 2002-03 and oil PSUs have to aggressively compete in the market to retain their market share and to sustain growth.

The reply was not tenable. Justice Mohan Committee stressed on the necessity to ensure that the total package was related more to performance and profits of the companies than it was at present. Further, the Committee observed that performance related payments in public sector undertakings existed only in form and not in substance. By rewarding the employees by payment of PRI which already stood rewarded by way of PI, the Company rewarded productivity linked performance in form and not in substance. Thus, payment of PRI on the same parameters of PI without achieving any additional benefits, that too retrospectively, was not justified. Extension of PRI scheme for 2002-03 and 2003-04 on the ground that PI was restricted to 15 *per cent* as per DPE guidelines only proved that the Company circumvented the guidelines and also Justice Mohan Committee's recommendations. Retrospective extension of the scheme from 2002-03 on the ground of liberalisation and increase in market share was not justified as there was virtually no competition in the retail and LPG segments that constituted 70 *per cent* of the Company's total turnover and in view of existence of subsidy scheme.

Thus, the manner of implementation of the PRI scheme was not in the best financial and professional interest of the Company and appeared to be aimed at distributing the amount of profits available within the overall ceiling prescribed by the DPE. The decision of Management resulted in excess payment of Rs.76.26 crore.

14.4.2 Avoidable payment of penal charges amounting to Rs.2.18 crore

Failure to enter into an agreement with Visakhapatnam Municipal Corporation for the additional requirement of one lakh Imperial Gallons *per* Day for the period June 2002 to August 2007 after the expiry of the previous agreement in May 2002 resulted in avoidable payment of penal charges amounting to Rs.2.18 crore.

A review of payments made towards water charges to Visakhapatnam Municipal Corporation (VMC) revealed that the Visakh Refinery of the Company paid an amount of Rs.8.58 crore towards penal charges¹ for excess drawal of water from Meghadri Gedda Reservoir (MGR) during the period June 2002 to August 2007. Prior to expiry of the agreement with VMC in May 2002 the agreed quantity was 17 lakh Imperial Gallons *per* Day² (LIGD). At the time of renewal for the additional quantity of three LIGD sought by the Company VMC agreed to supply one LIGD from MGR and two LIGD from Tatipudi

¹ Surcharge @ 100 per cent for excess drawal of water

² Twelve LIGD from Meghadri Gedda Reservoir and 5 LIGD from Tatipudi Reservoir Scheme

Reservoir Scheme (TRS). As the supply from TRS was erratic and the Company was not able to draw the full quantity of five LIGD and therefore the Company excessively drew from MGR but without having entered into agreement with VMC for additional quantity from MGR. Failure to do so resulted in an avoidable payment of Rs.2.18 crore towards surcharge for excess drawal of one LIGD of water from MGR during the period between June 2002 and August 2007.

The Company in its reply stated (May 2007) that renewal of the agreement was not done, considering the outgo of capital and the significant interest loss every year.

The Ministry in its reply stated (August 2007) that if an agreement had been entered into, the Company would have been required to pay additional Capital Contribution Charges (CCC) of Rs.10.20 crore and Advance Consumption Charges (ACC) of Rs.6.79 crore. The total interest on this would have worked out to Rs.13.64 crore @ 12 per cent per annum compounded at half yearly rests for a five year period which was higher by Rs.4.82 crore than the surcharge paid. Hence, it did not enter into agreement.

The reply was not tenable in view of the following:

- (i) The values of additional deposits payable as given in the reply were not correct. Since the Company had paid CCC upto 25 LIGD in 1988 itself no further payment was required to be paid. Also no ACC was payable upto the quantity of 17 LIGD. For an additional requirement of one LIGD an amount of Rs.44.89 lakh was payable. This is also evident from the draft agreement duly signed and furnished by VMC to the Company in July 2002 and the correspondence made by the Company with VMC in September 2002.
- (ii) The Company's contention that it had gained by not submitting the required deposits overlooks the fact that the benefit of interest worked out to only Rs.5.39^{*} lakh *per annum* on the additional deposit amount of Rs.44.89 lakh as against the average penal charges of Rs.41.46 lakh *per annum*. In the process of avoiding an additional deposit of Rs.44.89 lakh the Company incurred avoidable expenditure of Rs.2.18 crore towards penal charges. Further delay in entering into an agreement would only result in additional outgo on penal charges.

Failure to enter into agreement with VMC for the additional quantity of one LIGD for the period June 2002 to August 2007 after the expiry of the previous agreement in May 2002 resulted in avoidable payment of penal charges amounting to Rs.2.18 crore.

14.4.3 Non-recovery of dues due to failure to encash the bank guarantee

Non-encashment of a bank guarantee despite the dues exceeding the value of available bank guarantees resulted in non-recovery of dues to the extent of Rs.1.91 crore.

Hindustan Petroleum Corporation Limited (Company) entered into a Memorandum of Understanding with M/s.You-One-Maharia (Customer) for supply of petroleum products. The Company obtained seven bank guarantees (BGs) worth Rs.4.25 crore from the

^{* @ 12} per cent per annum

Customer. The Customer's outstanding, as on November 2004 was Rs.4.71 crore. As one BG for Rs. one crore was to expire on 3 December 2004, the Company sent (15 November 2004) a letter to Bank for extension/ encashment of BG. This was however, not followed up by the Company to confirm before 3 December 2004 from the bank that the BG had been renewed/encashed. The BG expired and the Company could not realise its dues from the customer. As of August 2007 the amount outstanding against the customer was Rs.1.91 crore including interest of Rs.91 lakh.

The Ministry stated (August 2007) that the Company was confident of renewal of BG for Rs. one crore based on past experience where the bankers renewed BGs well after their expiry also. Moreover, the customer had given several assurances on having taken appropriate action at his end for renewal of the said bank guarantee and when the party failed to renew the bank guarantee, the other available BGs for Rs.3.25 crore were invoked. The Company has been in constant touch with the customer for recovery of outstanding dues.

The reply was not tenable as the purpose of BGs is to serve as a safeguard in the event of default in payment by the customer. It was, therefore, essential to encash/ renew the BG before its expiry especially as it was common knowledge with the Company that the party had run into financial problems since August 2004. It is pertinent to mention that the dues from the customer had exceeded the total security available with the Company.

Thus, non-encashment of a BG despite the dues exceeding the value of available BGs resulted in non-recovery of dues to the extent of Rs.1.91 crore.

14.4.4 Avoidable expenditure of Rs.1.32 crore due to delay in procurement of panels

Delay in procurement of panels resulted in extra expenditure of Rs.1.32 crore on excess fuel consumption.

The Company placed (June 2005) a purchase order on original equipment manufacturer (OEM) for supply of 240 numbers of gilled panels for replacement of damaged ones at a basic FOB^{*} price of Euro 1,35,200 (Rs.78.44 lakh). The panels were received in December 2005 and installed and commissioned in January 2006. In April 1999 it had been decided by the Company that panels would be developed indigenously. Before these efforts could fructify the inspection department noticed deterioration in panels in May 2003 and recommended replacement of panels.

It was observed in Audit that the cost of procurement was not significant compared to extra expenditure of Rs 72 lakh *per annum* on fuel consumption. A delay by just one month would have meant extra fuel cost of upto eight *per cent* of the cost of the panels. Given the uncertainty of when the indigenous effort would fructify and the enormous benefits that would accrue from fuel saving there was a compelling need to import immediately and defer the indigenous effort for future requirements. It was only in December 2003 *i.e.*, after a delay of seven months that a decision was taken to import the items. Subsequently a period of 18 months was taken to place an order in June 2005 on

^{*} Free on Board

proprietary basis. There was, thus, a delay of 22 months¹ resulting in avoidable expenditure of Rs.1.32 crore on excess fuel consumption.

The Ministry stated (August 2007) that the procurement of panels tentatively valued at Rs.51 lakh was avoided/ deferred in April 1999 with a view to developing them indigenously. Since procurement of panels was postponed by six years from 1999 to 2005 there was a saving of Rs.65 lakh. They further stated that bonafide indigenisation attempt was made as it would have been a long term solution, resulting in considerable cost savings

The above reply was not tenable. The savings of Rs.65 lakh computed by the Company by comparing the procurement cost in 2005 with the price quoted by the supplier in 1999 was not relevant. Audit has neither commented adversely on the non procurement in 1999 nor about the indigenous efforts made subsequent to 1999. The need for procurement of panels was considered essential in May 2003 when the inspection department recommended replacement of panels and the Company needed to take urgent action for replacement of panels.

Thus, delay in procurement of panels resulted in extra expenditure of Rs.1.32 crore on excess fuel consumption.

Indian Oil Corporation Limited

14.5.1 Unfruitful expenditure on infrastructure due to unsuitable feed stock

Expenditure of Rs.43.29 crore by Indian Oil Corporation Limited on creation of infrastructure for production of Butene–I proved unfruitful due to failure in ensuring the guaranteed quality of feed stock.

Indian Oil Corporation Limited (IOCL) approved (June 1996) a project for setting up a Butene plant at Gujarat Refinery (GR) for production of Butene (C4). The Company approved (October 1997) award of the job of supply of process knowhow, proprietary catalyst and other relevant services for installation of Butene-I plant to M/s. IFP, France, the licensor. As per the Technology Transfer Agreement (TT Agreement) with the licensor, a guaranteed 'nil' level of sulphur (impurities in charge) in the raw C4 charge to the first distillation column was envisaged.

The Company commissioned (March 2001) Butene-I plant at a cost of Rs.43.29 crore with a capacity of 16,500 MT *per annum*. Between March 2001 and October 2001, the plant could produce only 250 MT of Butene-I and the sulphur level in the feed was 20 ppm² which the catalyst could not tolerate. Therefore, the plant was shut down from November 2001 till trials for restarting it commenced in June 2004. To bring the sulphur content within acceptable limit, the licensor provided replacement charge of catalyst free of cost in June 2004. The Company could not operate the plant from October 2004 to July 2005 when the ancillary unit *i.e.*, Methyl Tertiary Butyl Ether (MTBE) Unit was shut down due to a fire accident. After re-commissioning of the ancillary unit in August 2005,

¹ After allowing a margin of three months for placement of order on a proprietary basis

² Parts per million

the Company could still not operate the Butene-I plant as catalyst in another unit (SHU^{*}) did not function due to nitrogen and sulphur contaminations. The Company loaded fresh charge of catalyst in Butene-I SHU section and started trial runs again in January 2006; however, desired results could not be achieved. Except for negligible production of 250 MT (1.5 *per cent* of installed capacity) of Butene-I in 2001-02, 6 MT (0.04 *per cent*) in 2003-04 and 35 MT (0.2 *per cent*) in 2004-05, there was no production of Butene-I since commissioning of the plant in March 2001.

In its accounts for 2004-05, the Company provided Rs.20.57 crore towards impairment of this asset mainly because of underutilisation of the capacity.

The issues of substandard quality of Butene-I produced by the plant upto October 2001 and the shut down of plant in November 2001 was first raised by Audit in March 2003. The Management stated (July 2003) that the customers demanded Butene-I product with less than one ppm of sulphur which was not possible with the available crude mix processed at Gujarat Refinery containing around 25 to 30 *per cent* weight of imported high sulphur crude processing. The Management also stated that production would restart in 2003-04 after modifications to reduce sulphur content to acceptable levels. In a follow up, Audit observed (February 2006) that the Management did not take cognisance of the fact that imported crude with high sulphur formed a substantial portion of crude being processed at GR despite envisaging a 'nil' sulphur level in the raw Butene feed at the design stage. The Feasibility Report (FR) laid stress on supply/demand and profitability issues rather than the availability of required quality of feed.

Thus, creation of processing facilities for production of Butene-I without ensuring the quality of feed stock resulted in idling of the plant even after six years of its commissioning and consequential unfruitful expenditure of Rs.43.29 crore.

The Management stated (March 2007) that:

- the specification of Butene (C4) raffinate obtained from the process licensor of MTBE plant (having no specification on sulphur content) formed the basis for feed specification for Butene-I although 300 ppm sulphur was shown in the MTBE product. This was incorporated in the notice inviting tender (NIT) for selection of process licensor of Butene-I. The specifications of sulphur in feedstock for Butene-I was, therefore, of no relevance for unit design considerations;
- (ii) M/s. Axens (the process licensor) had a detailed review of the upstream units and expressed that the probable solution could be installation of an efficient Merox facility at Fluidised Catalytic Cracking (FCC) Unit to bring down sulphur content in MTBE feed followed by molecular sieves for removal of residual impurities *viz.*, sulphur, nitriles and arsenic. Extractive Merox Unit for treating FCC Unit Liquefied Petroleum Gas (LPG) was approved under Residue Up-gradation Project scheduled for completion by October 2009.

^{*} Selective Hydrogenation Unit

The Ministry also replied (August 2007) on similar lines adding that for producing on grade Butene-I, number of trials were taken by the process licensor M/s. Axens including feed quality modification and change of catalyst but on grade Butene-1 product could not be produced and the process licensor, a leading licensor of international repute, was unable to pinpoint the real cause of the problem.

The reply of the Management and the Ministry was not tenable as:

- (i) the TT Agreement categorically stipulated guaranteed figure of 'nil' sulphur (impurities in charge) in the raw C4 charge to the first distillation column. The Annual Operation Report of the Company for 2006-07 stated that the plant was idle and as per the licensor, suitable feed was not available for making the product.
- (ii) the remedial measures taken by the Management were basically aimed at removing sulphur content in MTBE feed which would form the feedstock to Butene-I plant and, therefore, was relevant in the unit design. As such, the sulphur content in the feed, a critical input in the design was overlooked by the Management in going ahead with the project.

14.5.2 Wasteful expenditure on exploration project

Inadequate study and non-assessment of the commercial viability of the exploration project by the Company, led to wasteful expenditure of Rs.28.44 crore.

With launching of the New Exploration Licensing Policy (1999), Indian Oil Corporation Limited (Company) entered into the business of oil and gas exploration by participating in the Exploration and Production (E and P) joint ventures. Out of a total of 18 blocks where the Company had participated in E and P joint ventures, Audit reviewed the E and P joint ventures for two blocks^{*} during audit in January 2007. These blocks were awarded to the Consortium of Oil and Natural Gas Corporation Limited (Operator), Oil India Limited, GAIL (India) Limited and Gujarat State Petroleum Corporation Limited, for which, Production Sharing Contracts (PSC) were signed with the Government in July 2001. The Company had a 15 *per cent* participating interest in both the blocks.

As per the PSC, the Consortium was required to complete the minimum work programme (MWP), failing which, it was liable to pay to the Government an amount equivalent to the amount required to carry out the unfinished MWP. The details of MWP for Phase-I of these blocks was as under:

Name of block	Exploration period	Number of wells to be drilled
MB-DWN-2000/1	Four years	Three
(Block-1)	(16 August 2001 to 15 August 2005)	
MB-DWN-2000/2	Four years	Three
(Block-2)	(16 August 2001 to 15 August 2005)	

^{*} *MB-DWN-2000/1* and *MB-DWN-2000/2*

It was noticed in Audit (January 2007) that before finalising the prospects for drilling in the above blocks, the consortium obtained the advice of the independent consultant who advised that all the prospects identified by the Operator were non-viable and recommended the Consortium to obtain additional data. The Operator, however, drilled (January 2004 to August 2004) a location identified by it as the best of the planned locations, which proved to be dry. The Consortium then planned to go for additional 2D seismic survey along with integrated regional study of the deepwater block during 2005-06 for assessing the hydrocarbon potential. This required extension of permit for exploration of the blocks till August 2006. While the extension was being pursued with the Ministry, the new extension policy was announced in March 2006 whereby the blocks stood relinquished as on 15 August 2005 and the Consortium had to pay a penalty for the cost of unfinished MWP. Thus, only one well was drilled during the phase-I of the project. The expenditure of Rs.28.44 crore¹ on the blocks, being the share of the Company, was rendered wasteful.

The Management stated (March 2007) that the operator went ahead with drilling of the best identified location as no well information was available in the entire region to validate the interpretation. Management added (July 2007) that while bidding for these deepwater blocks in 2000, the data availability was meagre and hence the interpretation was also sketchy. The Company had the participating interest and depended on the expertise of the Operator. The Ministry also furnished the same reply (August 2007).

The reply was not tenable as while exploration and production was based on many factors all not entirely known, the Company should have at its end assessed the prospects independently and more comprehensively before investing funds in E and P joint venture which had inherent risks and in which it had no operating control.

Thus, lack of due and diligent risk assessment before participating in an E and P joint venture, resulted in wasteful expenditure of Rs.28.44 crore.

14.5.3 Idle investment in Sulphur Recovery Unit

The Company's failure to realistically assess the design parameters of available inputs resulted in idle investment of Rs.19.79 crore on Sulphur Recovery Unit and interest liability of Rs.1.99 crore on the investment.

Indian Oil Corporation Limited (Company) approved the installation of Hydrotreating facilities at Digboi refinery of Assam Oil Division at an estimated cost of Rs.343 crore in February 1999 with the objectives of meeting the improved specification of cetane number² (48) of High Speed Diesel (HSD), reducing the sulphur content in HSD, upgradation of Light Diesel Oil and bringing about overall reduction in emissions. The Hydrotreating facilities consisted, *inter alia*, of Hydrotreating Unit (HDT), Hydrogen Unit (HGU), Amine Absorption Unit /Amine Regeneration Unit (AAU/ARU), Sour Water Stripper Unit (SWSU) and Sulphur Recovery Unit (SRU). SRU, with a daily capacity of three MT was included in Hydrotreating facilities for recovery of sulphur

¹ Rs.16.89 crore towards actual expenditure on the block, Rs.11.55 crore being the penalty for unfinished MWP

² Cetane number is a measure of the ignition quality of the fuel

from acid gas and sour gas coming out from HDT and from SWSU respectively before flaring the gases. The design capacity of SRU was based on the assumption of an hourly Hydrogen Sulphide (H₂S) feed of 138.4 kg *per* hour and design sulphur content of 2,110 parts *per* millions in the HSD feed stock.

SRU was commissioned at a cost of Rs.19.79 crore in November 2005. As the sulphur content in the crude and hence in the HDT feed was low, H_2S content in acid gas and sour gas was considerably low at around 39 *per cent* of the design parameter. Against the design requirement of 138.4 kg *per* hour of H_2S , actual availability of H_2S at the prevailing capacity utilisation of the refinery was 37.6 kg *per* hour. Consequently, the Company could operate the unit for only 21 days since November 2005 and produced 20.6 MT of sulphur. The SRU has remained 'shut down' since January 2006 due to low feed availability. As SRU was not operational H_2S was burnt in the acid flare without recovery of sulphur. However, Digboi Refinery could meet the desired sulphur emission norms without operation of SRU.

The Ministry stated (July 2007) that SRU installed at Digboi refinery was of a very small capacity in line with feed availability. Operating such small SRU with lower feed rate had resulted in non-operation of SRU. In order to overcome the problems, process modification job was carried out at a cost of Rs.0.77 lakh and the plant was put into operation on June 2007.

The contention of the Ministry was not tenable. Actual crude availability during 2006-07 was 90 *per cent* of the installed capacity despite which it could not meet the design hourly feed requirement. The Company could not get the desired feed for running the SRU due to lower sulphur content in crude as well as in the feed to SRU as compared with the desired sulphur content. Further, problem in operation of SRU had not been removed even after process modification and the Company could operate the unit for one day only in July 2007 and the unit remained shutdown till date (August 2007). The Company should have envisaged the problem of running small capacity unit during feasibility stage itself.

The Company's failure to realistically assess the design parameters of available inputs resulted in the investment of Rs.19.79 crore on SRU which is non-operational. Besides the Company has incurred an interest liability of Rs.1.99 crore on the investment.

14.5.4 Avoidable expenditure of Rs.9.07 crore

Due to delay in augmenting the captive generating capacity to meet the demands of the new projects the Company incurred an avoidable expenditure of Rs.9.07 crore.

The Indian Oil Corporation Limited (Company) approved (1998-99) three new projects^{*} for quality improvement and yield maximisation of its Guwahati refinery. The projects were to be commissioned between December 2001 and May 2002. It was envisaged (February 2000) that the additional power requirement of 6.092 MW for the new projects would be met from its captive thermal power station with two turbo generator (TG) sets of eight MW each. In February 2000, based on the Basic Engineering Design Package of

^{*} Hydrotreating unit, ISOSIV unit and IDMAX unit along with allied facilities

the new projects, refinery estimated a total power requirement of 15.6 MW that could be met by the existing TG sets running simultaneously. However, since this arrangement would leave the refinery with no standby arrangement and may reduce the reliability of refinery operation, the Company proposed to install one 10 MW TG set. In June 2001, the proposal was revised for a 15 MW TG which was again revised in November 2001 to 12 MW Steam Turbo Generator (STG) set. There was no change in the expected additional power demand for new projects. The proposal for 12 MW STG was approved in March 2003 with a completion schedule of December 2004 with efforts to complete the project ahead of schedule. The new STG was commissioned in December 2005 at a cost of Rs.29.70 crore after a delay of 12 months.

In the meantime, the three new projects were commissioned between January 2002 and June 2003. As there was mismatch in the commissioning of STG with the commissioning of new projects, the refinery faced continuous power shortage of around 3 MW in operating the new projects. To meet the power shortfall, in the short term the Company contracted (October 2002) diesel generator (DG) sets for one year commencing February 2003. The contract continued till February 2006 and the Company paid Rs.9.07 crore as hiring and operating costs.

It was observed in Audit (September 2004) that the Company failed to assess the power requirement at the time of approving the three new projects in 1998-99 and therefore, did not timely take action to augment its captive power generation capacity. Moreover, even after identifying the future requirement of power based on the realistic data available in February 2000, the Company took an unduly long time (37 months) to finally commence the STG project. Thereafter also, the implementation of the project was delayed by 12 months due to slippages at various stages, mainly in awarding the contract which took four months. Another eight months were lost in delivery of equipment by BHEL due to delays in finalising the pipe layout by the Company. This resulted in avoidable payment of hiring charges of Rs.5.86 crore^{*} in addition to extra fuel cost of Rs.3.21 crore on generation of power by running DG sets.

The Ministry while accepting (July 2007) the facts stated that due to non-availability of Assam Crude during 2001-02 and 2002-03 the requirement of power was under constant review and approval of additional STG was accorded after examining all possible situations and when operation of the refinery at full capacity was assured.

The contention of the Ministry was not tenable as in approving the new projects, the need for additional power should have been integral to the projects. Also, the operation of the refinery at full capacity would have been assured only when the power requirement was assured too. Further most of the new projects are quality improvement and pollution control projects and not capacity enhancement projects.

Thus, due to failure to ensure augmentation of power generating capacity in time to meet the additional demand of new projects, the Company incurred avoidable expenditure of Rs.9.07 crore on power generation.

^{*} After adjustment of interest saving on capital cost

14.5.5 Avoidable expenditure on transportation of bulk Liquefied Petroleum Gas

The Company failed to remove its operational bottlenecks for optimum utilisation of unloading bays in time. Consequently, it failed to minimise transportation cost on bulk Liquefied Petroleum Gas movement and incurred avoidable transportation cost of Rs.3.60 crore.

The bulk Liquefied Petroleum Gas (LPG) requirement for the Patna LPG Bottling Plant (BP) of Indian Oil Corporation Limited (Company) was being sourced mainly from Barauni in Bihar, Mathura and Auraiya in Uttar Pradesh and Haldia in West Bengal. There are two routes from Barauni to Patna BP for movement of bulk LPG having certified Return Trip Kilo Metre (RTKM) of 344 (shorter route) and 813 (longer route) respectively. On shorter route, there is a rail cum road bridge on river Sone near Koelwar. Due to height barrier and low available turning radius on the bridge, only smaller Tank Trucks (TT) of 13 MT (carrying capacity of 12.5 MT) or less capacity are allowed to cross this bridge. Thus, the smaller TTs follow the shorter RTKM of 344 for bulk LPG transportation while bigger TTs having capacity of 18 MT (carrying capacity of 17.5 MT) follow the longer route. Thus, transportation of bulk LPG from Barauni to Patna BP through bigger TT is costlier than through smaller TTs.

Average daily bottling requirement of bulk LPG for Patna BP ranged from 403 MT to 484 MT during 2003-04 to 2005-06. Thus, unloading quantity of about 500 MT has to be maintained to avoid a possible dry out of the Plant. As worked out by the Management, 30 *per cent* (*i.e.*, 150 MT) of that requirement could have been met through smaller TTs with the existing eight unloading bays having daily unloading capacity of 32 TTs in four batches and therefore, it could transport 4,000 MT of LPG in a month using smaller TTs. However, the unloading capacity of bays was limited to 24 TTs due to the availability of only three compressors instead of four at the unloading bays. Due to this limitation, the Company was compelled to use bigger TTs following the longer route.

It was observed in Audit (May 2005) that though the Company identified the requirement of one additional vapor compressor as early as June 2003 and it was shifted from Jameshedpur bottling plant to Patna bottling plant in September 2003, it was commissioned only in October 2005. Audit analysis revealed that during the years 2003-04 to 2005-06 (upto September 2005) the Patna BP received 97,105 MT of bulk LPG from Barauni, out of which 27,390 MT of LPG was received through smaller TTs. Had the Company augmented the compressor capacity in 2003 and monitored the LPG movement properly, Patna BP could have received 77,192 MT¹ of LPG through smaller TTs. As the difference in freight charges between smaller TT and the bigger TT ranged from Rs.715.19 *per* MT to Rs.735.75 *per* MT during that period, the shortfall in transportation of 49,802 MT² through smaller TTs resulted in an avoidable expenditure of Rs.3.60 crore on transportation of bulk LPG.

The Ministry stated (November 2007) that though actions were initiated early for commissioning of the compressor the same could not be achieved mainly due to delay on

¹ Calculated based on maximum availability of 4,000 MT per month of actual LPG received from Barauni Refinery through smaller TT which ever was higher

² 77,192 MT less 27,390 MT

the part of some of the parties engaged for the work. After augmentation of compressor capacity in October 2005, upliftment of bulk LPG *ex*-Barauni for Patna BP was being made by smaller TTs only. Thus, smaller TTs were optimally utilised to the extent feasible.

The contention of the Ministry was not tenable. Though the Patna BP identified the requirement of additional compressor in May/June 2003 and received the compressor in September 2003, action for procurement of pipelines, valves and other equipment for commissioning of compressor was not taken till January 2004. The last purchase order for spares was issued only in May 2005 and the compressor was commissioned in October 2005.

Thus, the Company's failure to timely remove operational bottlenecks and monitor the commissioning by the compressor for optimum utilisation of unloading bays led to an avoidable transportation cost of Rs.3.60 crore on bulk LPG movement.

14.5.6 Wasteful expenditure and idle investment

IBP Company Limited could not dispose of the land acquired in 1999 at a cost of Rs.4.59 crore for additional product storage project subsequently abandoned in 2002. This resulted in loss of interest of Rs.1.90 crore on idle investment on land besides wasteful pre-operative expenditure of Rs.1.14 crore.

IBP Co. Limited (Company) purchased (1999) 19.697 acres of land at Irumpanam, Kochi from Government of Kerala at a cost of Rs.2.92 crore to develop additional product tankage project. Subsequently, the compensation payable to the owners of the land was enhanced in terms of orders issued by the Sub Court, Ernakulam (July 2001) and the total payment made by the Company to the landowners as on 31 March 2007 was Rs.4.59 crore. In addition, the Company incurred Rs.1.14 crore as pre-operative expenses on security services, consultancy charges, legal fees, *etc.*, for the above project.

The Company was taken over by Indian Oil Corporation Limited (IOCL) in February 2002. In view of the adequate IOCL facilities at Kochi the Company decided in January 2003 to drop the project, write off the pre-operative expenses and surrender the land to the Government of Kerala. As the Government of Kerala did not permit surrender of land, the Company decided to dispose it of. The land was yet to be disposed of (June 2007).

The Ministry stated (August 2007) that as per the pre-feasibility report prepared in 1997 the project was technically feasible and economically viable. However when the Company was taken over by IOCL in February 2002 it was decided to drop the project as IOCL would cater to the combined needs of both IOCL and IBP.

The reply was not tenable as the Company was taken over by IOCL in February 2002 but the proposal for disposal of the land was approved finally in January 2003 after a delay of nearly one year. As of September 2007 the Company has neither disposed of the land nor has made any alternate utilisation even after a lapse of more than five years from the Company's takeover by IOCL.

Thus, non-disposal of the land acquired for a project subsequently abandoned has resulted in a loss of interest of Rs.1.90 crore^{*} on blocked funds, excluding enhanced compensation, besides rendering the pre-operative expenditure of Rs.1.14 crore wasteful.

14.5.7 Loss due to payment of higher transportation rates

The Company did not fix separate rates for product transportation over hilly and plains terrain while road bridging resulting in extra expenditure of Rs.1.02 crore due to payment of hill rate for distance covered in the plains.

Assam Oil Division of Indian Oil Corporation Limited (Company) meets the demand for petroleum products of its Silchar Depot in Assam from Guwahati Tap Off Point (TOP). The Vairangtee Depot in Mizoram receives products from Silchar Depot through road bridging. The round trip distance in Kilometer (RTKM) to Vairangtee Depot from Silchar Depot, comprised transportation over hilly and plains terrain with plains constituting 88.88 *per cent* of the total distance.

Audit observed (March 2006) that the transportation contract for supply of products to Vairangtee Depot, effective during 2004-05, was finalised at rates applicable for hilly terrain only. In the absence of separate rates for hills and plains, payment was made at hill rate for the distance covered through plains. During the period, 2004-05 to 2006-07 (upto November 2006) the Company supplied 129130 KL of petroleum product to Vairangtee Depot *ex*-Silchar. The rates *per* KL *per* RTKM applicable for hills were higher than the rates for plains by Re.0.82 and the Company incurred extra expenditure of Rs.1.02 crore on transportation of products during the said period.

The Ministry stated (August 2007) that the Company had always maintained composite rate without considering any concept of hills or plains and, thus, the transportation payment for above road bridging had been made as per contracted rates. The Ministry's contention was not acceptable since considerable portions of the route to Vairangtee Depot *ex*-Silchar was through plains, but the Company specifically called for hill rates for the entire route and accordingly finalised the tender. Moreover, post audit, the Company finalised the transportation contract with effect from 1 January 2007 for the same route at separate rates for hills and plains.

Thus, the Company's failure to fix separate transportation rates for hills and for plains while finalising product transportation tenders resulted in extra expenditure of Rs.1.02 crore.

^{*} Interest @ eight per cent per annum on Rs.2.92 crore from May 1999 (last payment made in April 1999) to June 2007

Indian Oil Corporation Limited, Bharat Petroleum Corporation Limited and Hindustan Petroleum Corporation Limited

14.6.1 Loss due to sale of Liquefied Petroleum Gas at subsidised rate to ineligible customers

Oil Marketing Companies *viz.*, IOCL, BPCL and HPCL incurred avoidable loss of revenue of Rs.47.14 crore on sale of Liquefied Petroleum Gas at concessional rate to ineligible category of customers during the period July 2002 to April 2003.

In pursuance of the GOI decision of March 1987, Oil Marketing Companies (OMCs) *viz.*, Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL) and Hindustan Petroleum Corporation Limited (HPCL) were selling packed Liquefied Petroleum Gas (LPG) to seven specific categories of non-domestic customers at subsidised rates applicable to domestic customers. The concession continued even after dismantling of administrative price mechanism and de-regulation in oil sector with effect from 1 April 2002. The GOI, on 3 July 2002, withdrew the concession available to these seven categories of customers. However, the OMCs continued to sell LPG to these customers at subsidised rates.

On 29 January 2003, the GOI reintroduced the scheme of sale of LPG to three categories of non-domestic customers at domestic (subsidised) rates and on 29 April 2003 for the remaining four non-domestic categories of customers. However, the GOI rejected (September 2003) as non-admissible the subsidy claim of OMCs for the LPG sold to these seven non-domestic customers at concessional rates for the interregnum period of 3 July 2002 to 29 January/April 2003.

Audit observed (December 2006) that the Oil industry had made another request to the GOI in January 2005 for reconsidering their claim. The GOI again intimated (March 2005) the OMCs that their request of January 2005 was re-examined and that there was no change in its stand as the Oil Companies had acted against the Government's direction in the matter during the interregnum period. Consequently, the OMCs were saddled with an avoidable loss of revenue of Rs.47.14 crore^{*} on account of sale of LPG at subsidised rate to ineligible category of customers during the period July 2002 to April 2003.

The Managements of the OMCs replied (March/April 2007) that on receipt of the GOI's instructions withdrawing the concessional rate, Oil industry represented for continuing the scheme for exempted category of the customers. Since no response was received from the GOI, it was presumed that the industry's proposal was under active consideration of the Government and the OMCs did not consider the list of exempted category customers as withdrawn. The OMCs further stated that as majority of these categories are Government agencies, withdrawal of subsidy from such category of customers would mean one arm of the Government collecting additional amount from the pocket of another Government organisation.

Reply of the OMCs was not tenable. The GOI order of July 2002 was very clear that the OMCs were not entitled to reimbursement of subsidy extended to the seven categories of

IOCL:Rs.31.58 crore, BPCL:Rs.9.48 crore and HPCL:Rs.6.08 crore

consumers. It was, therefore, incorrect on the part of OMCs to extend the concession on a presumption. Even if the request for restoration of the subsidy to these customers was under consideration of the Government, the OMCs should have withdrawn the concession as a prudent management decision pending final decision of the Government.

Thus, failure to adhere to Government directions and imprudent decision to continue sale of LPG to non-domestic customers at subsidised rates resulted in loss of revenue of Rs.47.14 crore.

The matter was reported to the Ministry in June 2007; reply was awaited (November 2007).

Oil and Natural Gas Corporation Limited

Failure to upgrade and create facilities to contain the basic sediments and water content in the crude oil supplies within limits resulted in loss of revenue of Rs.96.96 crore.

Oil and Natural Gas Corporation Limited (Company) entered (April 2002) into a Memorandum of Understanding (MOU) with Indian Oil Corporation Limited (IOCL) for sale of crude oil from April 2002 to March 2004. The sale price was subject to discount at slab rates in case 'basic sediment and water' (BSW) content in the crude oil exceeded 0.2 *per cent* by volume. The MOU was to be replaced by 'crude oil sale agreement' (COSA), which however, was not signed and the Company continued to supply crude oil under the terms and conditions of the MOU (October 2007).

Till March 2002 when the administered price mechanism was dismantled, the admissible level of BSW in crude oil supplies was one *per cent* and the infrastructure facilities established by the Company were designed to meet this level. In the absence of adequate facilities to contain the level of BSW at 0.2 *per cent* or below, crude oil supplied by the Company from its western onshore field (North and South Gujarat) to IOCL contained BSW ranging between 0.212 *per cent* to 1.378 *per cent* during the period from April 2002 to April 2007 and IOCL received a discount of Rs.107.41 crore from the Company on this account.

Audit observed (November 2006) that though the Company had entered into the MOU in April 2002 requiring higher quality specifications of crude oil for realising full sale price, it did not upgrade its facilities in time to contain the level of BSW upto 0.2 *per cent* in the crude oil. Supplies of crude oil, in the five years following the signing of MOU, generally exceeded this bench-mark. The supplies from North Gujarat onshore during the period exceeded this limit in 57 of the 67 months from April 2002 to October 2007; and the BSW content in the crude oil supplies from South Gujarat onshore of the Company exceeded 0.2 *per cent* in 48 of the 58 months (from April 2002 to October 2007^{*}). The

^{14.7.1} Loss due to sale of crude oil containing basic sediments and water content above the norm

The Company was able to maintain BSW level within the agreed limit in the crude supplies from South Gujarat onshore during the period August 2006 to April 2007 by close monitoring, increasing the

Company sustained loss of revenue of Rs.107.41 crore between April 2002 and October 2007 due to its failure to maintain the BSW level within 0.2 *per cent*. Audit observed that Eastern and Mumbai Regions of the Company also gave discount of Rs.53.32 crore to various refineries on account of high level of BSW in the crude oil during the period from April 2002 to September 2006. The Company initiated action for upgradation of its facilities in North Gujarat only in February 2004 by making a reference to its internal institute *viz.*, Institute of Oil and Gas Production Technology (IOGPT). The Company directed (December 2005) all Assets to take appropriate action to reduce BSW content. These instructions were reiterated in June 2006 and November 2006 due to continuing upward trend in discount allowed for BSW. As the corrective action was yet (October 2007) to be taken, the Company continued to sustain losses due to higher BSW levels.

The Management stated (May 2007) that in view of the high level of water content in crude oil, IOGPT conducted a study on a reference made by its Ahmedabad Asset and the Institute submitted its report in December 2004. However, before receipt of the report, action for construction of one 30,000 cubic metres tank had been initiated by the Asset which as per policy decision was referred to the Offshore Design Group, Baroda for preparation of bid document and cost estimates. Thus, the Company claimed, action had been taken to meet revised standards of BSW. The Ministry replied (November 2007) on similar lines. As regards Mumbai Region, the Ministry stated that in the given field conditions total BSW content could not be removed due to process limitations, both at offshore and at Uran plant but by and large offshore fields were able to maintain the BSW in the requisite range. In respect of Eastern Region, the total BSW content could not be removed due to process limitations. The Ministry added that the COSA could not be finalised due to various reasons. Pending fresh MOUs, existing arrangement was continued.

Reply of the Management/Ministry was not tenable, as even if we accept the claim that steps were initiated in time, fact remains that even after four years, the Company had not been able to maintain the stipulated level of BSW. The reference was made to IOGPT only in February 2004 *i.e.*, after two years from signing of MOU. Even after reckoning two years from April 2002 *i.e.*, the date of signing MOU, for upgradation of facilities, the facilities could have been put in place by April 2004 and the Company could have avoided the discount allowed to the extent of Rs.96.96 crore^{*} from April 2004 to October 2007. Timely finalisation of COSA for replacing the MOU which expired in March 2004 would have provided an opportunity to the Company to review and, if possible, revise the stipulation of BSW and the attendant discount. The corrective action taken by the Management was not effective as BSW continued to be above stipulated level in all Regions.

Thus, after signing of MOU, the Company failed to take corrective action for reducing the BSW content in crude oil to the agreed level resulting in a loss of revenue of Rs.96.96

frequency of collection of samples and giving more retention time in the tanks for settling of water and reprocessing the bottom crude. However, the level of BSW exceeded 0.2 per cent from May 2007 to October 2007 (except June 2007).

Gujarat: Rs.66.84 crore (April 2004 to October 2007); Eastern and Mumbai Regions: Rs.30.12 crore (April 2004 to September 2006)

crore from April 2004 to October 2007. As the facilities were yet (September 2007) to be upgraded in all the Regions, the Company continued to sustain loss of revenue.

14.7.2 Avoidable production loss due to delay in procurement of spares

Due to delayed procurement of stand-by rotors for variable speed motors, the Company sustained net loss of revenue of Rs.9.12 crore.

Ethane Propane Recovery Unit (EPRU) at Uran Plant of Oil and Natural Gas Corporation Limited (Company) extracts value added products *viz.*, ethane and propane (C_2C_3) from the sweet crude of Mumbai Offshore. EPRU is run with two lean gas compressors and one propane compressor. The lean gas compressors were commissioned in 1990. These were driven by two variable speed drive motors. These motors fitted with rotors which, apart from being high value items, were critical for running the compressors. On three occasions in March 1998, February 2000 and July 2001, one or the other motor stopped functioning primarily due to defect in the rotor. Each such failure consumed four to five weeks in repairs.

The Company, with a view to reducing the idle time of the rotor while the motor was being repaired and saving the consequential production loss, decided (July 2001) to procure a stand-by rotor as it was possible to replace the defective by stand-by rotor in a week's time. However, the Company initiated action for procurement only in August 2003 and placed an order in April 2004 with a delivery schedule of 12 months. Meanwhile, the rotor of one of the motors developed fault on 5 October 2004 and the motor remained shut down till 9 November 2004 for 36 days.

Audit observed (June 2006) that though the Company realised the necessity of a stand-by rotor in July 2001, it took more than two years in initiating (August 2003) action for procurement of a stand-by rotor and almost three years in placing (April 2004) the supply order. Specific reasons for failure to act in time were not evident from the records.

As against the production target of 91,200 MT for October 2004 and November 2004, the Company could produce only 75,947 MT of C_2C_3 in these two months whereas as per the rate of production achieved in October 2004 and November 2004, the production in the two months should have been 1,02,450 MT even after allowing one week for replacement of rotor. Taking a conservative approach, audit estimates that the Company suffered a net revenue loss of Rs.9.12 crore^{*} due to the lower production achieved. In case, the Company had acted promptly in July 2001 itself for procurement of the rotor, the revenue loss could have been avoided.

The Management stated in reply (May 2007) that Uran plant had initiated action for procurement of rotor in 2001 itself by establishing dialogue with the Original Equipment Manufacturer (OEM) for procurement of a new rotor and other spares as existing rotor was less reliable after two repairs. However, the rotor being a high value item, procurement of superior and reliable rotor was deliberated at various high levels in all its sensitivities, effectiveness and future technological perspectives. This process, the Management contended, consumed time primarily due to the laid down procedures and

^{*} After reduction of variable cost to be borne by the Company

practices. The Ministry also replied (September 2007) on similar lines and assured the Audit that in future all efforts would be taken to reduce the time taken in finalising such cases and audit observation shall be kept in focus.

The Management's justification for the delay in procurement on the ground of procedural compliance was not tenable, particularly when the requirement was critical and was being procured from the OEM. Considering the loss of production and resultant revenue loss, it was incumbent on the Management to expedite implementation of the decision for procurement of the rotor in a time bound manner.

14.7.3 Avoidable expenditure due to non-utilisation of an owned vessel

Due to non-utilisation of a self owned vessel fitted with revamped anchor handling and towing system (AHTS) for towing operations and deploying it on operations other than towing, the Company incurred an avoidable expenditure of Rs.6.42 crore on charter hiring of a vessel having AHTS for such operations.

Oil and Natural Gas Corporation Limited (Company) owned a fleet of 31 Offshore Supply Vessels (OSVs), including 14 of 'Sindhu' series, to cater to the requirements of various offshore installations. Apart from carrying material, water, fuel, *etc.*, to rigs/platforms, the OSVs also performed other important functions like rig towing, anchor handling and fire fighting. Though 'Sindhu' series OSVs were fitted with AHTS for towing and anchor handling operations, these OSVs were not utilised anytime for such operations from 1997-98 till 2004. Consequently, the AHTS fitted on the OSVs deteriorated due to non use. These operations were conducted by charter hiring vessels having AHTS facility. In September 2003, the Company decided to revive the AHTS on 'Sindhu' series OSVs to reduce the cost on charter hiring of similar vessels and four OSVs with AHTS (Sindhu- 8, 9, 10 and 11) were overhauled at a cost of Rs.4.42 crore* and commissioned during the period from June 2004 to December 2004.

Audit observed (June 2005) that even after revamping of the AHTS, 'Sindhu-11' OSV did not carry out any rig move job and was deployed on duties involving stand-by, supply, fire fighting which was not the objective of its revamping and the Company again charter hired a vessel in lieu thereof. The charter hiring rate of vessels having AHTS were higher than those not fitted with such a system. As a result, the Company incurred an avoidable cost of Rs.6.42 crore on charter hiring of another vessel having AHTS for rig move/towing operations from July 2004 to March 2007. The revamping cost of 'Sindhu-11' OSV was, thus, rendered unfruitful.

The Management in reply (June 2007) stated that decision of deployment of OSVs was generally based on availability of those vessels in a particular area and type of duty involved at that time. The Management also stated that not using the anchor handling tug did not mean that the vessel remained unutilised and hired AHTS vessels were already in place on a long term contract of three years. Addition of own OSV fitted with an operational AHTS provided flexibility in quickly doing a rig tow especially during monsoon when almost all rigs had to be towed simultaneously to save on rig time.

^{*} Sindhu-8:Rs.1.19 crore, Sindhu-9:Rs.1.19 crore, Sindhu-10:Rs.1.02 crore and Sindhu-11:Rs.1.02 crore

The Ministry added (November 2007) that 'Sindhu 11' was deployed to carry out towing job from 10 May 2005 to 17 May 2005. The vessel was also used to carry out rig move job in April 2007. The vessel was, thus, used for towing purpose as and when required and presently was used for additional capabilities.

Reply of the Management/ Ministry was not tenable as the Company had revamped four of the 14 OSVs with the specific objective to save on charter hire of vessel having AHTS. Despite availability of revamped AHTS on 'Sindhu-11' OSV, the Company deployed it on jobs other than rig move/towing, whereas these jobs could have been assigned to other OSVs not having AHTS. The AHTS on four owned OSVs had been revamped in June 2004 and, therefore, deployment of owned OSV on towing operations by corresponding reduction in charter hiring of similar vessels could have been effected by March 2007. Even after the expiry of primary contractual term of three years for hiring of such vessels, the Management did not deploy its own vessel; instead, it extended the contract for a period of one year in two instalments beginning May 2006. During May 2005, the vessel was used for towing of Neelam Single Buoy Mooring which was used for evacuation of oil from Production Complexes and not for towing of rig. The vessel had not been utilised for rig move/towing operations till November 2007 except for 98 hours in April 2007. Thus, non-deployment of the OSV defeated the very purpose of revamping the AHTS on the OSVs and resulted in incurring avoidable expenditure (Rs.6.42 crore) on charter hiring of a vessel besides rendering the investment (Rs.1.02 crore) on revamping unfruitful.

14.7.4 Wasteful expenditure on Portable Top Drive System

ONGC incurred wasteful expenditure of Rs.4.99 crore due to mismanagement of procurement and commissioning of Portable Top Drive System.

Oil and Natural Gas Corporation Limited (ONGC) decided (September 1998) to equip its rigs with Portable Top Drive System (PTDS) for drilling of high angle wells. The Company invited tenders in July 2000 and placed (October 2001) an order for Rs.4.88 crore on M/s. Varco System, USA for supply, erection and commissioning of PTDS operable on 60 Hz power. The system was supplied in March 2002. Subsequently, the Company realised that while the PTDS was operable on 60Hz power, the rigs were operating on 50Hz; therefore, to overcome the problem, it placed (November 2002) an order for a frequency converter. The frequency converter costing Rs.11 lakh was received in February 2003. During commissioning (April 2004) the PCBs (electronic cards) failed and had to be replaced by electronic cards which were taken from rig (E 2001-1). However, the PTDS could be used only sporadically due to problems encountered in different components. The PTDS remained in disuse from November 2004 due to want of spares and repairs. In September 2006, the 400 HP motor of the PTDS was removed and loaned to another Asset of the Company in the Ahmedabad region.

Audit observed (January 2006) the following deficiencies in procurement of the PTDS:-

(i) ONGC failed to specify the power requirement at the time of placing the indent and procured an equipment operable on 60Hz power whereas the operating power frequency of the rig was 50Hz. Despite the supplier seeking (September 2001) a confirmation from the Company of the power specification required before the purchase order was placed, the Company again failed to correlate the power requirement of the PTDS with available power supply.

- (ii) Though the PTDS was received in March 2002, the Company placed an order for procurement of the frequency converter in November 2002. While the frequency converter was received in February 2003, commissioning of PTDS was initiated in March 2004 by which time the warranty period for the converter had expired. Thus, two years period since procurement of the PTDS was wasted for want of frequency converter.
- (iii) At the time of commissioning the PTDS, M/s. Varco informed ONGC that most of the boxes containing top drive accessories were damaged due to improper stocking and that the top drive was in a bad condition. M/s. Varco also alerted that all elastomeric seals in the system could be dry and brittle leading to potential failure during commissioning. These apprehensions proved true when the Company experienced a series of problems when the PTDS was commissioned in April 2004.
- (iv) PTDS experienced frequent breakdowns after its commissioning in April 2004. It remained in disuse since November 2004 till date (October 2007). Consequently, the connected rig (BI-2000-II) remained idle from 4 November 2004 to 2 January 2005 when the well was abandoned and the rig was released resulting in idling cost of Rs.1.85 crore to the Company.
- (v) Though ONGC did take up the matter of supply of spares and services with M/s. Varco, the matter was not followed up vigorously and the PTDS was lying unused since November 2004.

The Management in reply (April 2007) accepted the facts and audit observation. The Ministry added (November 2007) that all concerned Assets have been asked to return all the equipments/components which were removed. Action has been initiated for finalisation of order and air lifting of spares. The Company was pursuing with M/s. Varco to send quotation and all out efforts were being made to put the PTDS back in operation within the next three months.

Thus, mismanagement of procurement and commissioning of the PTDS resulted in wasteful expenditure of Rs.4.99 crore besides idling cost of Rs.1.85 crore of rig for 60 days.

14.7.5 Non-recovery of flare gas due to delay in procuring lube oil

Indecision and delay in procuring lube oil for running an equipment for recovery of value added product from flaring gas resulted in wastage of the gas worth Rs.4.61 crore.

As part of 'Zero Gas Flaring Project', Oil and Natural Gas Corporation Limited (ONGC) purchased 'Flare Gas Recovery Unit' for its Uran plant and commissioned it on 2 August 2003 to recover the gas being flared in normal conditions. The recovered gas was to be used as stripping gas in Crude Stabilisation Units (CSUs) for extraction of value added products *viz.*, LPG, Ethane-Propane and Naphtha. Flare Gas Recovery Unit comprised

one compressor that required lube oil for lubrication of the compressor. Thus, lube oil was critical for the smooth running of the CSU. At the time of commissioning of the compressor, OEM^{*} supplied 31 barrels of lube oil (27 barrels for start up of the compressor to be filled in before initial start up and four barrels for topping up during running of the compressor). Uran plant used 28 barrels of lube oil for start up of the compressor and separately initiated (7 August 2003) a proposal for procuring 35 barrels of lube oil for one time change while topping up quantity would be on yearly requirement basis. A tender for procurement was floated in August 2004. Meanwhile (17 July 2004), the flare gas compressor tripped for want of lube oil. Technical and price bids were opened in October and November 2004 respectively and supply order placed on Indian Oil Corporation Limited in November 2004. Lube oil was received on 22 December 2004 and the compressor was put back in operation on 11 January 2005. During shutdown (17 July 2004 to 10 January 2005) of the compressor, ONGC could not recover flare gas valuing Rs.4.61 crore for want of lube oil.

Audit observed (June 2006) that the stock of lube oil in the store as well as in the plant was 'nil' in December 2003. Yet, ONGC unduly delayed its procurement. It took 15 months to convert an indent into a supply order. The reasons for delay were primarily regarding the source of supply and quantity to be procured. Considering the lead time for finalising the tender and the loss involved in flaring of gas, ONGC should have resorted to emergency purchase to put the compressor back in operation. Due to the indecision and delay, ONGC lost flared gas worth Rs.4.61 crore.

The Management in reply stated (April 2007) that:

- A market survey was undertaken and after analysis, it was felt that synthetic oil as per specifications of OEM was available in open market at cheaper rates. Therefore, the case was processed on global tender basis.
- (ii) The budgetary quote obtained from original oil supplier *viz.*, CPI Engineering Services Inc (CPI) was very high at Rs. 6.87 lakh for six barrels. However, CPI did not indicate the availability of oil in the offer. Moreover, transportation by sea and clearance of customs would have taken a minimum of 1.5 to 2 months. Thus, lube oil would have been available only in November 2004.
- (iii) Processing of global tender was at an advanced stage and hence ONGC decided to wait for regular supply of equivalent grade of lube oil which was considered economical. This resulted in saving of Rs.7.23 crore in long run with development of alternate source.

Reply of the Management was not tenable as:

(i) Though, requirement for fresh supplies was initiated in August 2003, ONGC could make available lube oil only in December 2004. As the stock of lube oil was 'nil' as early as December 2003, it was incumbent on ONGC to go for emergency purchase to avoid shut down of the compressor. It obtained budgetary

^{*} Original Equipment Manufacturer viz., Howden Compressors Limited, UK

quote from CPI only on 19 July 2004 *i.e.*, after plant shutdown. In case CPI had not indicated availability of lube oil in its offer, it was in the interest of ONGC to get the necessary clarifications. To avoid the loss, the cost of procurement of lube oil from CPI (Rs.7.60 lakh for six barrels including air transportation) was negligible.

(ii) The Management contention on the savings that would accrue during the entire lifetime (20 years) of the compressor was independent and unrelated to the issues brought out in Audit.

The Ministry while explaining (September 2007) the circumstances of failure of the compressor and the fact that the specific oil consumption by the compressor was more than the field operating conditions, admitted that considering the circumstances and loss of production due to shut down, the case for procurement of oil on emergency basis should have been taken up with the OEM to put the compressor back in operation at shortest possible time. The Ministry also assured of taking emergent action in future.