# MINISTRY OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES

## CHAPTER IV

### Hindustan Paper Corporation Limited

### Production performance of the paper mills and marketing of paper

***Highlights*:**

- Against the installed capacity of 200000 MT, the production during 2002-03 and 2006-07 ranged between 1.97 lakh MT and 2.10 lakh MT indicating capacity utilisation between 98.7 *per cent* and 105 *per cent*. The Company achieved the installed capacity when it produced higher gram *per* square metre (GSM) paper.

(***Paras 4.7.1 and 4.7.2***)

- Excess downtime led to loss of production of 1,58,561 MT. Controllable factors like mechanical maintenance, paper breaks, spool jamming and shortage of pulp were responsible for the maximum downtime during 2002-03 to 2006-07.

(***Para 4.7.3***)

- Despite encouraging results and adoption of alkaline sizing by its competitors, the Company did not switch over to alkaline sizing from acid sizing.

(***Para 4.7.4.1***)

- Excess consumption of raw material and other inputs over the norms fixed by the Company also led to loss of contribution amounting to Rs.53.30 crore during the period under review.

(***Para 4.7.5***)

- Constraints existed in procurement of basic inputs.

(***Para 4.7.6)***

- The Company's market share declined over the years from 12.7 *per cent* in 2004-05 to 9.8 *per cent* in 2006-07. Though the Industry expanded at a compounded annual growth rate (CAGR) of 5.5 *per cent* in the five years up to 2006-07, the Company's sales remained between 1.80 lakh MT and 2 lakh MT.

(***Paras 4.7.2 and 4.7.7.1***)

- The Company could not achieve the overall target of sales during 2004-05 to 2006-07.

(***Para 4.7.7.2***)

- Marketing efforts were not adequate and were not supplemented with better market intelligence and there was no mechanism for assessing the performance of Sales Depots.

(***Paras 4.7.7.3 and 4.7.7.5)***

- Non-liquidation of stock was partly because of the Company's failure to correctly assess demand and its inability to capture an appropriate segment of the market. Consequently, the Company was compelled to declare special discounts of upto 27 *per cent* in 2005-06 and 2006-07 to dispose the accumulated stock.

(***Para 4.7.7.5)***

- The Company could not comply with environmental requirements as stipulated in the Corporate Responsibility for Environmental Protection (CREP) guidelines.

(***Para 4.7.8***)

***Summary of recommendations***

1. ***The Company should examine the basis of determination of capacity of the paper mills for a more realistic and proper appreciation of the performance of the two mills.***
2. ***The Company should formulate and implement a comprehensive maintenance policy for its mills that includes defined responsibilities of the various functional wings. It should consider introducing a combination of predictive, preventive and proactive maintenance and for this may obtain necessary data/information from other PSUs in this sector. An online integrated information system should be introduced for maintenance management and reduction of downtime. Condition monitoring equipments should be installed in all the identified inaccessible zones. The Company should streamline the supply of bamboo and chemicals to minimise shut down of pulp mill.***
3. ***The Company should introduce alkaline sizing at the earliest to extend the product range to value added products. Roll handling and wrapping of paper should be mechanise to the extent possible.***
4. ***The Company should review the recommendations from various studies/reports relating to reduction in consumption of various inputs and on the basis of the review, implement the accepted recommendations in a time-bound manner.***
5. ***The Company should establish proper arrangements to sustain its co-ordination and inter-action with the State Governments, concerned departments and NGOs to develop sources for supply of bamboo and paper pulp including alternate schemes to encourage bamboo cultivation and providing direct financial benefit to bamboo growers.***
6. ***The Company should take steps to build brand image of its products and include value added products to its product basket.***
7. ***The targets for each zone should be set based on realistic assessment of markets.***

8. ***The Company should establish procedure and define staff accountabilities to strengthen its market intelligence system and expand its stockists' base.***
9. ***The Company should strengthen its Quality Control Department.***
10. ***The Company should achieve 'zero stock' of finished goods at the end of financial year by establishing systems and procedures after due review and implementing the consultants recommendations.***
11. ***Compliance with environmental requirements as stipulated in the CREP guidelines should be prioritised for implementation.***

### *4.1 Introduction*

Hindustan Paper Corporation Limited (HPC) was incorporated on 29 May 1970 as a wholly owned Government Company under the Ministry of Heavy Industry. The Company has two paper mills, namely, Nagaon Paper Mill (NPM) and Cachar Paper Mill (CPM), both located in Assam. These mills were commissioned in October 1985 and in April 1988, respectively, with the basic objective of using locally available bamboo resources to produce printing and writing paper for mass consumption in the education sector. The Company was, therefore, generally producing low value paper. However, since consumer preference and demand was shifting to higher quality paper like copier paper, surface-sized maplitho and other premium products. The Company had undertaken a Modernisation and Technological Upgradation Project (MTUP) at a cost of Rs.659 crore which was scheduled for completion in 2008-2009. The process of manufacturing paper involves pulp making (chipping of basic raw materials, digesting, washing, screening, cleaning and bleaching) and conversion of pulp into paper by mixing of chemicals, calendaring and beating/refining of pulp. The flow chart of the paper making process is given in ***Annexure X.***

### *4.2 Scope of audit*

A Performance Audit was conducted of the production and marketing activities of the Company covering the five year period from 2002-03 to 2006-07. The Corporate office at Kolkata, the paper mills at Nagaon and Cachar and three of the five Regional Offices were covered in this review.

### *4.3 Audit objectives*

The Performance Audit was conducted to assess that:

- paper mills were operated and maintained efficiently;
- procurement policy of major inputs was effective;
- production planning and marketing strategy was well co-ordinated; and
- the internal control system was well established.

### *4.4 Audit criteria*

The following criteria were adopted for judging the performance of the Company:

- Installed capacity of the machines.
- Product-mix as mentioned in the Detail Project Report.
- Norms fixed by the Company for consumption of inputs.

- Industry best practices.
- Maintenance schedule given by original equipment manufacturers.
- Corporate Responsibility for Environmental Protection guidelines and other statutory norms in respect of Environment.
- Procurement Manual of the Company.
- Marketing policy of the Company.

### *4.5 Audit methodology*

After a preliminary study and collection of background information, an entry conference was held with the Management on 20 February 2007 to discuss the audit objectives. Based on the examination of records, a discussion paper containing preliminary findings was issued to the Management on 31 July 2007. Exit conference to discuss audit findings was held on 7 September 2007. The Management's reply to the performance audit report was received in October 2007.

### *4.6 Acknowledgement.*

Audit acknowledges the co-operation and assistance extended by the Management at various stages of performance audit. Audit is also thankful to the Management of Tamil Nadu Papers Limited both at Corporate Office in Chennai and paper mill at Pugalur for their co-operation and assistance.

### *4.7 Audit findings*

#### *4.7.1 Capacity utilisation*

The two paper mills of the Company have identical Plant and Machinery (Jessop and L&T machines) with a capacity of 1,00,000 MT each. During 2002-03 and 2006-07 the mills operated at a capacity utilisation of between 98.7 *per cent* and 105 *per cent*.

The installed capacity of machines is fixed on the basis of three parameters viz. product mix, machine speed and machine available days. The product mix considered for fixing installed capacity was 52 GSM[1] for Jessop and 56 GSM for L&T machines. It was noticed that the Company achieved its installed capacity only when higher GSM paper (ranging from 57 GSM to 145 GSM) was produced in larger quantity. The highest capacity utilisation was in 2004-05, when such high GSM paper constituted 76 *per cent* of total production. Since the capacity of the machines was fixed based on production of 52/56 GSM paper, the evaluation of actual capacity utilisation by producing higher GSM paper could not be fairly done. The Management in its reply stated that re-rating of capacity was not an industry practice. However, high capacity utilisation despite excessive downtime (refer para 4.7.3) is an anomalous situation that needs to be examined by the Management for a proper appreciation of the capacity utilisation and over-all performance of the Company.

| ***Recommendation No.4.1*** |
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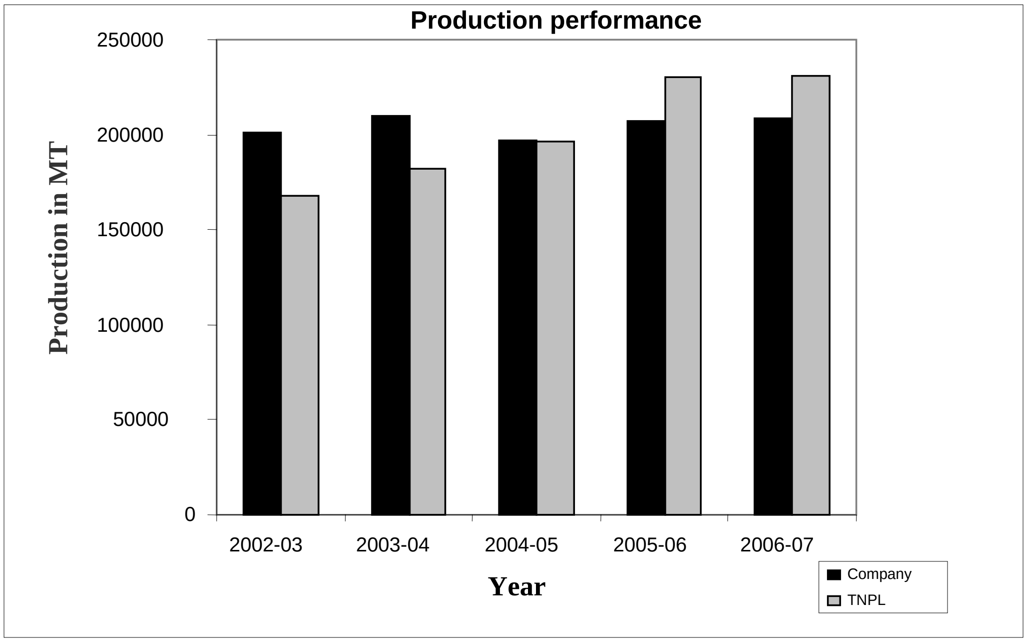
| ***The Company should examine the basis of determination of capacity of the paper mills for a more realistic and proper appreciation of the performance of the two mills.*** |

***[1] GSM: Grams per square metre. It indicates weight of one square metre of paper.***

### *4.7.2. Production performance*

The paper industry expanded at a compounded annual growth rate (CAGR) of 5.5 *per cent* in the five years from 2002-03 to 2006-07. However, the Company's production remained between 1.97 lakh MT and 2.10 lakh MT during this period resulting in decline in Company's market share. Production of another PSU, Tamil Nadu Papers Limited (TNPL) on the other hand increased with the expanding market as is evident from the bar chart below:

**Chart 4.1**




Production could not be increased because of capacity limitation and limited demand for the Company's product. While accepting audit observation, the Management stated in its reply that due to disinvestment exercise initiated in 2002, the Company could not invest in expansion.

### *4.7.3 Down time analysis*

Review of idle hours at CPM and NPM indicated that actual downtime was much higher than the norms for both Jessop Machine and L&T Machine. While the details of excess downtime is at ***Annexure XI,*** a brief summary of the same is given below:

**Table 4.1**

| **Name of the Machine** | **Downtime Norms (*per cent* of available hours)** | **Actual Downtime (*per cent*)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **2002-03** | | **2003-04** | | **2004-05** | | **2005-06** | | **2006-07** | |
| | | ***CPM*** | **NPM** | ***CPM*** | **NPM** | ***CPM*** | **NPM** | ***CPM*** | **NPM** | ***CPM*** | **NPM** |
| **Jessop** | 9.7 | 27.8 | 18.3 | 26.5 | 20.2 | 29.5 | 15.9 | 20.5 | 18.0 | 15.8 | 19.4 |
| **L&T** | 9.7 | 24 | 20.2 | 22.00 | 16.1 | 27.3 | 17.7 | 20.7 | 19.0 | 20.4 | 19.9 |

The excess downtime at CPM and NPM resulted in production loss of 1,58,561 MT of paper during 2002-03 to 2006-07 **(*Annexure XII*).** Analysis of downtime for this period indicated that controllable factors like mechanical maintenance, paper breaks, spool jamming and shortage of pulp were responsible for the maximum downtime. These are discussed in detail in the following paragraphs:

### *4.7.3.1 Maintenance*

To contain downtime on account of mechanical problems within the norm of one *per cent* as fixed by the Company, it was required to follow a sound maintenance policy. However the following deficiencies were noted:

- The Company had not developed a comprehensive maintenance policy.
- Though the Company adopted preventive and predictive maintenance[2] schedule, neither did the preventive maintenance schedule (PMS) cover all equipment/parts as required in the original equipment manufacturer's manual nor was it followed strictly. The Company's Procedure and Work Instruction Manual covered only preventive maintenance of major equipments.
- Though predictive maintenance was introduced in NPM, the Management had not identified inaccessible locations for installation of condition monitoring equipments. It was observed that out of 543 inaccessible locations in CPM, the Company installed condition monitoring equipments[3] in only 97 locations.

In the absence of documented policies in respect of replacement and revamping, such works were undertaken on a need basis and not in a systematic manner. Test check of minutes of production meetings also revealed lack of adequate planning for carrying out shut down activities, poor inter-disciplinary coordination among different work groups and absence of checklist for shutdown activities. The consultant appointed for technology upgradation**,** also had observed (December 2005) that due to lack of adequate refurbishment, a consistent, stable and efficient operation was not possible in the mills.

The Management stated that both preventive and predictive maintenance were taken recourse to depending upon the criticality of the equipment in production line. The shut down activities were charted out in the form of a bar chart and action plan was drawn accordingly much in advance and that compliance of checklist and co-ordination of related activities had helped to curb unwanted machine down-time and time over run of annual shutdown.

The Management's contention is not supported by the fact that down time on account of mechanical problems during the period under review was generally higher than the norm of one *per cent* and touched three *per cent* in the case of L&T machine in 2006-07. TNPL, on the other hand, was able to bring down the downtime on account of mechanical problem from 0.7 *per cent* (2002-03) to 0.33 *per cent* (2006-07).

***4.7.3.2*** The audit reviewed the reasons for excess downtime and noted the following:

- Downtime due to high incidence of process trouble like paper breaks and jamming of wrapping machine (spool) during 2002-03 to 2006-07 ranged between

***[2] Predictive maintenance: A maintenance which models past behaviour to predict failures.***
***Preventive maintenance: A maintenance in which machines are checked periodically.***
***[3] Equipment to assess the condition of machine and equipment.***

1.6 *per cent* to 4.4 *per cent* against the norm of one *per cent*. On this being pointed out by audit, the Management stated that to address the problem the Company had decided to outsource the reel wrapping operation and with the installation of upgraded machinery during October 2006, downtime due to paper breaks had come down. It was, however, observed that loss of machine hours on account of paper breaks in March 2007 was 21 hours at CPM and 35 hours at NPM against the norm of 14.88 hours for each mill.

- Since the pulp mills had a storage capacity of 10-12 hours, there should ordinarily be no downtime in the paper machines due to shortage of pulp. Scrutiny, however, revealed that during the period of review, downtime due to pulp shortage ranged between 307 to 1211 hours annually. The pulp mill downtime is also attributable to shortages in availability of bamboo (refer para 4.7.6), liquor shortage (cooking media), accumulation of unbleached pulp and problems in machines and the processing of paper. While accepting the audit finding, the Management stated that they would try to work out a downtime norm for pulp mills.

***Recommendation No. 4.2***

***The Company should***

***(i) formulate and implement a comprehensive Maintenance Policy for its mills that includes defined responsibilities of the various functional wing;.***

***(ii) consider introducing a combination of predictive, preventive and proactive maintenance and for this may obtain necessary data/information from other PSUs in this sector;***

***(iii) introduce an online integrated information system for maintenance management and reduction of downtime;***

***(iv) install condition monitoring equipments in all the identified inaccessible zones; and***

***(v) streamline the supply of bamboo and chemicals to minimise shut down of pulp mill.***

### *4.7.4 Operational constraints*

***4.7.4.1*** The paper industry uses alkaline, acid or neutral sizing to reduce the water absorbing capacity of paper, which is a value added feature in the paper market. Of the above methods, alkaline sizing is considered more effective in reducing chemical consumption and in improving paper quality besides being more eco-friendly. The Company which was using acid sizing method, conducted plant scale trial run for alkaline sizing in NPM during 2002, 2003 and 2006. Despite encouraging results, adoption of this system by its competitors (both in private and public sector) and low initial capital investment (Rs.50 lakh), the Company did not switch over to alkaline sizing. The Management stated that outcome of plant level trials were being evaluated and the Company would switch over to alkaline sizing at an appropriate time in future subject to its commercial benefits. The Company in its reply resorted to a general response. Besides, to be successful, the Company needs to ensure time bound project evaluation and implementation of corrective measures.

***4.7.4.2*** In order to improve efficiency and save space, mechanisation of processes is required. It was observed that roll handling and wrapping were done manually which was not suitable for such a large scale operation. Further, though copier paper was sold mainly in A4 sheet form, the mills did not have an automated sheeting and cartonising system. While accepting audit observation, the Management stated that partial outsourcing of roll handling and wrapping and outsourcing of cutting and packaging operation was being considered.

***Recommendation No.4.3***

***The Company should***

***(i) introduce alkaline sizing at the earliest to extend the product range to value added products; and***

***(ii) mechanise roll handling and wrapping of paper to the extent possible.***

### *4.7.5 Consumption of inputs*

During 2002-03 to 2006-07 the consumption of bamboo and other inputs was in excess of norms. Such excess consumption resulted in loss of Rs.53.30 crore **(*Annexure XIII*)**. The excess consumption of bamboo was attributable to use of old and poor quality bamboo leading to higher consumption of chemicals. Further, due to plant related problems like frequent start up and shut down of digester, digester extraction problem, poor performance of DCW[4], higher fiber losses and poor godown management, the consumption of caustic, lime, alum, furnace oil and coal also exceeded the norms. Though, Management had conducted a number of studies to identify reasons for excess consumption and to suggest corrective action, any of the recommendations were yet to be implemented. The Management again assured that appropriate corrective action will be taken and with the installation of LSRP[5] and with the implementation of MTUP, higher consumption of chemicals would be reduced to a large extent.

The Management stated (October 2007) that due to silviculture norms it was not possible to restrict the use to 3-4 months' old bamboo only as felling was not allowed from May to September. Management's contention is not tenable since this being a known phenomenon it was already factored in the consumption norms fixed by the Management from time to time.

***Recommendation No. 4.4***
***The Company should review the recommendations from various studies/reports relating to reduction in consumption of various inputs and on the basis of the review, implement the accepted recommendations in a time-bound manner.***

### *4.7.6. Development of alternative source of bamboo*

Bamboo is the primary input in the paper manufacturing process of the mills. The Company sources its requirement of bamboo from the Hill District Councils and from private suppliers. Supply, however, is not always certain due to natural calamities, transportation problems and cartel formation by private suppliers. Further, the sources of bamboo as well as pulp wood are getting depleted. Therefore, to develop alternative

***[4] DCW-Dekker Cum Washer***
***[5] LSRP-Lime Sludge Reburning Plant***

sources to ensure sustainable supply of bamboo through Farm Forestry Scheme[6] and Tissue Culture, the Company started Farm Forestry Scheme at NPM (1987-88) and CPM (2001-02) through participation of Non-Government Organisations (NGOs). However, the scheme was not successful due to weak controls, poor survey, poor survival rate and non-percolation of the pecuniary benefit to the farmers through NGOs. Further, the progress of the Bamboo Resource Development Project launched by the Company in April 2004 at a cost of Rs.4.48 crore with the help of the Government of Assam scheduled to be completed in 2009-10 also did not progress due to non-settlement of the issues relating to compensation with the Government of Assam. While accepting the audit observation**,** the Management stated that they had taken action to improve the monitoring of the Farms Forestry Scheme.

***Recommendation No. 4.5***

***The Company should establish proper arrangements to sustain its co-ordination and inter-action with the State Governments, concerned departments and NGOs to develop sources for supply of bamboo and paper pulp including alternate schemes to encourage bamboo cultivation and providing direct financial benefit to bamboo growers.***

### *4.7.7 Marketing set-up*

The Company manages its marketing activities through its Marketing Department at Kolkata. The marketing and distribution network consists of the Company's five regional offices, 14 depot sales offices and accredited stockists. The principal domestic consumers are Government departments. Small quantity of paper is also exported to neighbouring countries through Merchant Exporter *i.e.,* Deemed Export.

### *4.7.7.1 Sales performance*

The Company's primary product is cream woven paper. The Company's market share declined from 12.7 *per cent* in 2004-05 to 9.8 *per cent* in 2006-07, though the industry expanded at a compounded annual growth rate of 5.5 *per cent* the Company's sale stagnated between 1.8 lakh MT and 2 lakh MT. This was because of poor domestic sale despite high discounts offered by the Company to liquidate old stock due to low acceptability of the Company's products outside the government departments/institutions. The Company also faced increased competition from B grade mills even in its market with Government agencies.

***Recommendation No. 4.6***

***The Company should***

***(i) take steps to build brand image of its products; and***

***(ii) include value added products to its product basket.***

#### *Monitoring region-wise sales performance*

Review of sales target vis-à-vis actual sales of the five regions during 2002-03 to 2006-07 **(*Annexure XIV*)** revealed that the targets were not realistically fixed as evident from the following:

***[6] Farm Forestry Scheme - A scheme under which financial assistance is given to willing farmers for supply of bamboo when harvested to HPC.***

- Despite the failure of North East Zone (except 2003-04) and South Zone to achieve the target during the period 2002-03 to 2006-07, the target of these regions were increased by 29 *per cent* and 31 *per cent*, respectively in 2006-07 over the previous year's target.
- The sales targets of North Zone and East Zone for 2006-07 were fixed at 8 *per cent* and 21 *per cent* lower than their actual sales in 2005-06.
- Though the sales of West Zone declined sharply in 2006-07 when compared to 2005-06, the Management had not analysed the reason for it.

Audit observed that while fixing targets, the Company did not take into account following factors, which resulted in setting of unrealistic targets.

- the strength and business practices of the competitors;
- loyalty and expected performance level of stockists;
- product wise demand potential in a particular state; and
- mechanism for correctly assessing the performance of sales depot offices.

The Company thus could not achieve the overall target of sales during 2004-05 to 2006-07 due to ineffective market intelligence and a shrinking stockist base as brought out in the subsequent paragraphs**.**

The Management contended that although the sales targets were not fulfilled, the actual closing stock had come down every year. The Management's contention is not tenable as stock liquidation was due to special measures taken to reduce mill closing stock (for details refer Para 4.7.7.5) Further, the Management's reply is silent on setting of unrealistic sales targets.

***Recommendation No. 4.7***

***The targets for each zone should be set based on realistic assessment of markets.***

### *4.7.7.3 Ineffective market intelligence and shrinking stockist network*

The Company introduced market intelligence system in December 2002 to receive information and feedback on business practices of competitors and price movement, and the Company's Strategic Business Plan (2006-11) emphasised the need for better market intelligence. The system, however, was ineffective as the market intelligence cell had not submitted any report to the Management so far (October 2007).

The Company's Strategic Business Plan (SBP) envisaged increasing the depth and coverage of the Company's stockist network for better market penetration. In fact, the Company's stockist base significantly declined from 80 in 2002-03 to 40 in 2006-07 with the termination of 43 stockists due to poor performance and addition of only three new stockists in the five years. It may be mentioned that TNPL's stockist network increased during 2000-01 to 2006-07.

***Recommendation No. 4.8***

***The Company should establish procedure and define staff accountabilities to strengthen its market intelligence system and expand its stockists' base.***

#### *4.7.7.4 Quality control*

The Company has to produce paper in conformity with the specification given in the indent. The Quality Control Department (QCD) is responsible for checking the material prior to despatch from the mills to avoid rejection by dealers/consumers or imposition of liquidated damages (LD) by institutional parties. Scrutiny revealed that the Company had to sustain losses amounting to Rs.76.31 lakh towards LD during 2002- 2005.

***Recommendation No. 4.9***

***The Company should strengthen its Quality Control Department.***

#### *4.7.7.5 Accumulation of stock at sale depots/ mills*

It was reported in CAG's Report Number 3 of 2004 that due to delay in disposal of slow/non-moving stocks (1999-2002) the Company had to incur inventory carrying cost of Rs.3.11 crore, besides loss of interest of Rs.5.51 crore on blocked funds.

To avoid stock accumulation, a consultant engaged by the Company had recommended processing of stockists' indents only after lifting of material indented previously and monitoring through quarterly age-wise stock reports. Scrutiny, however, revealed that due to the Company's failure to adhere to these recommendations the problem persisted. As on 31 March 2007, 41 *per cent* of the Company's closing stock in CPM was more than one year old. In an attempt to reduce accumulation of stock in the mills, the Company started dispatching paper to depots without indent which led to increase in uncovered stock from 5.68 *per cent* in 2004-05 to 90.5 *per cent* in 2006-07.

Non-liquidation of stock indicated the Company's failure to correctly assess demand and its inability to retain its share of the market. Consequently, the Company was compelled to declare special discounts of upto 27 *per cent* in 2005-06 and 2006-07 to dispose of the old stock. The Company stated (October 2007) that stock was accumulated every year during the lean period from June to November to cope with increased demand during the peak season from December to May. This justification is wholly untenable as the Company had highest accumulation of stock in the paper industry as stated in their Strategic Business plan (2007-08 to 2011-12) and TNPL, another PSU, had consistently achieved zero stock of finished goods at year-end.

***Recommendation No. 4.10***

***The Company should achieve 'zero stock' of finished goods at the end of financial year by establishing systems and procedures after due review and implementing the consultant's recommendations.***

### *4.7.8 Environmental Issues.*

#### *4.7.8.1 Non-compliance with CREP guidelines*

The charter on Corporate Responsibility for Environmental Protection (CREP) released (March 2003) by Ministry of Environment and Forests (MoEF), Government of India envisaged time bound action for progressive up-gradation of technologies and in-plant practices for control and improvement in the quality of effluents and emissions. Scrutiny, however, revealed that the Company failed to comply with the CREP guidelines with respect to AOX[7] level, recycling of mercury bearing effluent and reduction of mercury consumption. As compliance with CREP guidelines not only protects environment but also reduces chemical consumption, it deserves greater attention. The Management stated (October 2007) that in line with CREP guidelines, the Company had drawn action plan to be implemented with MTUP.

#### *4.7.8.2 Bamboo dust gasification plant and lime sludge reburning plant*

Lime Sludge Reburning Plant (LSRP) at NPM and CPM was approved (November 2003) at a cost of Rs.33 crore and the project was scheduled to be completed by June 2005. The Company also approved (February 2004) Bamboo Dust Based Gasification Plant (BDBGP) at NPM and CPM at a cost of Rs.2.5 crore with the completion in September 2006 for generating producer gas for partial substitution of furnace oil in the LSRP.

Though the BDGPs were completed in November 2006, they could not be put to use due to non-completion of LSRPs. Timely completion of these projects could have improved the environmental standards along with savings in operational costs. The Management stated that LSRP was expected to be completed by December 2007 and that there had been delays in handing over of civil fronts due to space constraints.

***Recommendation No. 4.11***

***Compliance with environmental requirements as stipulated in the CREP guidelines should be prioritised for implementation.***

### *4.8. Conclusion:*

The Company faced problem of excess downtime due to poor maintenance and pulp shortage leading to consequential loss of production. Consumption of raw materials and other inputs also exceeded the norms. The Company could not make any headway in production of value-added products. The Company's marketing efforts were inadequate though because of a booming economy and rising paper prices, the Company's financial performance during the period reviewed in audit had improved. However, to maintain good financial results it is incumbent upon the Company to remove the operational constraints and complete the proposed Mill Modernisation and Technological Up-gradation scheme in time. Above all, the Company should ensure optimum utilisation of existing facilities and widen its product range by expanding the capacities and revamping its marketing efforts.

The matter was reported to the Ministry in January 2008; reply was awaited.

***[7] AOX- Absorbable Organic Halides***