MINISTRY OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES

CHAPTER VI

Bharat Heavy Electricals Limited

Procurement System

Bharat Heavy Electricals Limited (BHEL) is one of the largest engineering and manufacturing enterprises catering to the core sectors of Indian Economy *viz.* Power Generation & Transmission, Industry, Transportation, Telecommunication, Renewable Energy, *etc.* During the year 2008-09 the Company registered gross sales of Rs.28,033 crore and material cost of around Rs.15,600 crore. The performance audit of the procurement system of the Company. disclosed that there was scope for further improvement in the following areas:

- The cost of material purchased by the Company as a percentage of turnover showed an increasing trend from 45.69 per cent in 2006-07 to 55.66 per cent in 2008-09. The Management was yet to formulate a plan of action to arrest the rise in material cost. Rising material cost was, among other things, partly attributable to majority purchases by the Company through limited tenders without establishing a solid vendor base. Only eight per cent of procurement was done by the Company through open tendering during the last three years ended March 2009 and the balance was through limited/single tenders. In Bhopal, Haridwar, Hyderabad, PEM, Noida and Trichy Units there was only a single vendor registered for 538, 286, 16, 302 and 8 material groups respectively. Many of the vendors registered with CII and CEA were not registered with the BHEL units.
- The Product Material Directories of units were not being updated continuously, giving a false assurance of existence of optimum number of vendors.
- The Purchase policy and procedures were not revised since October 1998 despite significant global changes affecting the business.
- In the absence of standard procedure for cost estimation, the units justified the price offers by applying escalation over the last purchase prices. In Haridwar, Hyderabad and Trichy units, this exercise was being done after opening of price bids.
- The PEM unit awarded 17 works (Rs. 26.80 crore) on a firm and its allied/sister concerns banned by Hyderabad unit.
- No norms for purchase lead time had been fixed by units except Trichy unit where targets of 60 days to 120 days for conversion of purchase requisitions into purchase orders had been fixed. Audit observed that during three years ended 31

March 2009 in 54 *per cent* cases the Company awarded contracts after 75 days and upto 300 days and in 13 *per cent* cases the time taken was more than 300 days.

- As per policy, repeat orders, without calling for fresh tenders could be placed provided there is no downward price trend. However, in Haridwar unit in four products (covering selected six purchase orders valuing Rs. 139.06 crore) the unit did not place repeat orders resulting in an extra expenditure of Rs. 29.09 crore.

Summary of recommendations

(i) The Company needs to develop comprehensive guidelines/policies on procurement to be followed uniformly by the units.

(ii) The Company needs to visit its limited tendering Policy in view of its thin vendor base and also to bring in more competition.

(iii) Conscious efforts have to be made towards vendor development by appropriate market research which would help in identifying efficient, economical and reliable sources of supply.

(iv) The centralised vendor database should be made more comprehensive and integrated so as to enable monitoring of vendors' performance at corporate level.

(v) Procurement through reverse auction, as per the decided policy may help the Company to reap the benefits of competitive prices.

6.1 Company profile

The Bharat Heavy Electricals Limited (BHEL) is the largest engineering and manufacturing enterprise in India in the energy-related/infrastructure sectors. It manufactures over 180 products and caters to the core sectors of Indian Economy *viz.* Power Generation and Transmission, Industry, Transportation, Telecommunication, Renewable Energy, *etc*. BHEL has 14 manufacturing units, 4 Power Sector Regional Centres, 8 Service Centres and 18 Regional Offices. The Company is headed by a Chairman cum Managing Director. The Organisation Structure of Company and its units and their locations are indicated in ***Annexure-XIV***. During 2008-09, the Company registered gross sales of Rs. 28,033 crore and earned a net profit of Rs. 3,138 crore.

6.2 Scope of Audit and Audit Methodology

The performance audit covered the procurement policies, guidelines and directives framed and issued by the Corporate office and implementation thereof by five selected manufacturing units located at Bhopal, Haridwar, Hyderabad, Ranipet and Trichy. Besides, two Power Sector Regions *viz* Southern and Northern located at Chennai and Nagpur, which mainly coordinate erection, testing and commissioning activities at sites of power projects, PEM[15] Noida responsible for procuring Balance of Plant[16] and one Transmission unit (TBG[17] New Delhi) were also selected. The functions of these units are given in ***Annexure-XV***.

[15] Project Engineering Management
[16] Plant and equipment which are not manufactured by the Company but are supplied to the customers after purchasing from outside vendors
[17] Transmission Business Group

The audit examination was restricted to a sample of 2,042 purchase orders placed between April 2006 to March 2009 valuing Rs. 14,422 crore drawn by using 'Stratified Random Sampling Method' which constituted about 35 *per cent* of the value of total purchases during the period. The details of sample are indicated in ***Annexure-XVI***.

The audit commenced with an Entry conference (31 March 2009) with the Management wherein the scope, objectives and criteria of the audit were discussed. This was followed by collection of data, issuance of audit observations and discussions with the unit Management. The audit was concluded with an Exit conference (27th January 2010) with the Top Management of the Company wherein the results of audit and the audit recommendations were discussed. The replies of the Management have been suitably incorporated in this report.

6.3 Audit objectives

The objectives of the Performance Audit were to assess whether:

a) the procurement process was fair and just, ensuring efficiency, economy and accountability;

b) the system of vendor selection, development and review of their performance was effective; and

c) there existed an effective mechanism for reviewing the outcome of contracts to implement the lessons learnt in future contracts.

6.4 Audit criteria

The performance of the Company was assessed mainly against the following criteria:

a) Purchase Policy, Supplier Evaluation and Review Procedure, Departmental Procedures, Systems and Methods Instructions (SMIs), Operations and Methods Instructions (OMs) and Delegation of Powers;

b) Instructions and recommendations on various aspects of material procurement;

c) Decisions of the Board of Directors and internal guidelines issued from time to time;

d) Approved procedure for registration of vendors and approved vendor list; and

e) Best practices prevalent in the Industry.

6.5 Acknowledgement

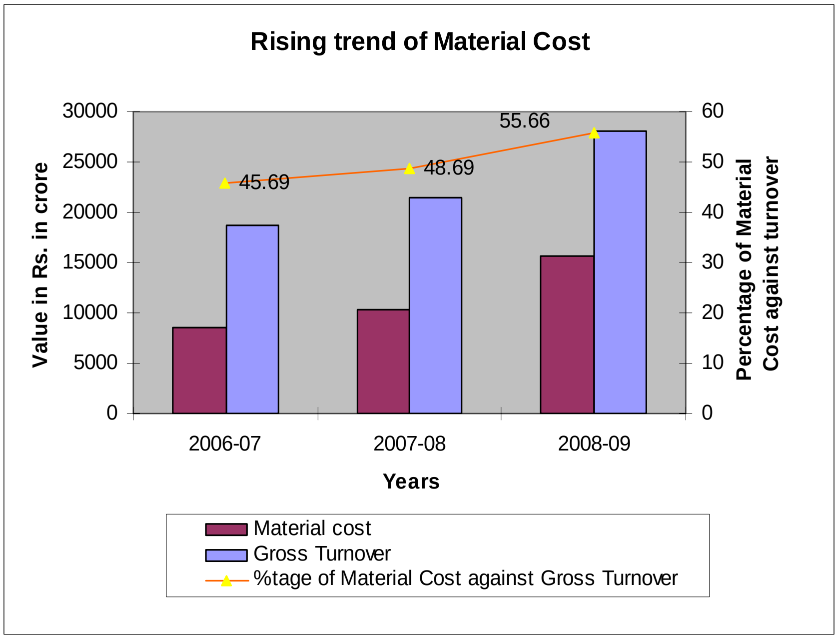
The audit acknowledges the co-operation extended by the Management at all levels in production of records and information, clarifications of issues and furnishing of replies. The audit also acknowledges that the Management has appreciated the audit inputs and intends to use these for the improvement of the process and has framed a plan of action for addressing the issues raised in Audit.

6.6 Audit findings

6.6.1 Rising trend of material cost

An analysis of the cost of material *vis-à-vis* turnover **(Chart 6.1)** indicated that the cost of material as a percentage of turnover increased from 45.69 *per cent* in 2006-07 to 55.66 *per cent* in 2008-09 over the last three years.

Chart 6.1



Though the issue was being discussed in the Management Committee meetings of the Company, the Management was yet to formulate a plan of action to arrest the rise in material cost. Audit analysis of the rising material cost indicated majority purchases by the Company through limited tender route without establishing a solid vendor base. The extent of limited tendering, low competition arising out of weaknesses in the vendor base and deficiencies in the procurement practices as noticed in audit are brought out in the succeeding paragraphs.

The Management attributed (January 2010) the rising trend in prices to the sharp increase in prices of inputs and change in product mix from standard lower size rating sets to higher size rating sets (more of 500 MW) and large size gas turbines having higher inputs from collaborators and higher import contents.

The fact remains that the Management is yet to devise a strategy to overcome the effect of rising trend of the material cost *vis a vis* turnover so that the margin does not get reduced substantially.

6.6.2 Purchase Policy and Purchase Procedures

The Corporate Office has framed a Purchase Policy (Policy) laying down the broad directions and guidelines to be followed by all the units as well as delegation of financial powers for procurement of materials/equipment and related services. The units have also formulated their Organisation and Methods Instructions (OMIs) and/or Departmental Procedures for various purchase activities, defining the duties and responsibilities of executives of various groups. The review of Corporate Purchase Policy and Procedures adopted by units revealed the following deficiencies:

(i) The Policy was last revised in October 1998. Despite significant global changes affecting the business as well as capacity addition requirements, the Policy has not been comprehensively reviewed to keep abreast of changing market scenario and new processes of procurement. Similarly, the Delegation of Powers relating to purchases are based on the price index as of January 1997 and despite significant increase in both volume and value of procurements in the past 11 years, these were not reviewed /amended. The Management stated (January 2010) that a task Force had been constituted to review /update and re-issue the policy.

(ii) As per the best public procurement practices, a financial limit is prescribed for adopting various modes of procurement *viz.* open, limited and single tendering. Audit observed that no such limit was prescribed by the Company. In the selected sample, only eight *per cent* of procurement (Rs. 1,186 crore) was made through open tenders. The Management stated (January 2010) that formulation of financial limits for resorting to open tenders was under consideration.

(iii) The Policy (Clause 9.1) stipulates that purchase committee consisting of representatives from Indenting, Purchase and Finance department (nominated by Head of Finance) may be constituted for effecting purchases and the recommendations of the Committee shall be submitted for the approval of the competent authority.

Audit observed that only Power sector region, Nagpur was processing procurement through Purchase Committees. No formal Purchase Committees in remaining units *viz.* Bhopal, Haridwar, Hyderabad, New Delhi (except for Capital Procurement), PEM Noida, Transmission Business Group (TBG) and Trichy were constituted.

The Management while agreeing (January 2010) to review its purchase policy, assured that the constitution of Purchase Committees would be made mandatory for all procurements exceeding Rs. Five crore.

Recommendation No. 6.1

The Company needs to develop comprehensive guidelines/policies on procurement to be followed uniformly by the units.

6.6.3 Tendering system

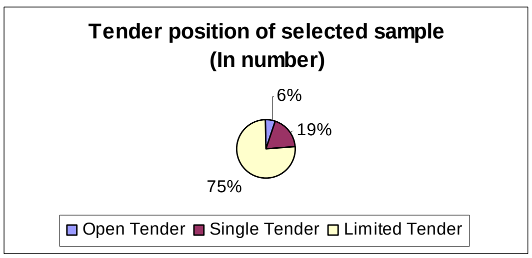
The Policy stipulates three types of tendering *viz.* open, limited and single for procurement of material and equipment. As per clause 3.1 of the Policy "Open tender shall be resorted to in such cases where adequate number of approved vendors are not listed and/or procurement from limited tender is considered not desirable. For this purpose, all known sources shall be addressed and/or press advertisement shall be resorted to. Enquiry shall be treated as an open tender if it is addressed to all approved vendors, not less than six. In case of response from two/three vendors, the open tender shall be treated as limited tender".

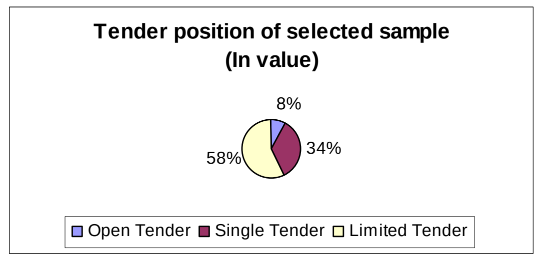
In response to Audit query questioning the rationale of treating enquiry to six vendors as open tender, the Management clarified that the distinction between open tender and limited tender was only for the purpose of delegation of powers. Though the Management was unable to justify as to how the tenders issued to a few selected vendors without press advertisement qualified as open tenders, it stated (January 2010) that the issue was being addressed in the draft purchase policy and the tenders issued to limited set of vendors (registered with BHEL) shall be treated as limited tender only.

6.6.3.1 Procurement by Limited/Single tenders

Audit analysis of sample purchase orders in the selected units revealed that these units had resorted to mainly limited or single tenders. The percentage of orders placed through open tenders to the total orders in the selected nine units in terms of numbers and value was only six *per cent* and eight *per cent* respectively and similar percentages of limited tender and single tenders put together to the total orders in these selected nine units in terms of numbers and value was 94 *per cent* and 92 *per cent* respectively, as indicated in the **Chart 6.2** given below:

Chart 6.2





6.6.3.2 Inconsistencies in loading for deviations in tender evaluation

Audit observed that in Hyderabad and Trichy units, the terms and conditions annexed to the purchase enquiries were silent on the element of interest to be loaded in case of deviations in prescribed payment terms. Loading for deviation in the delivery terms for arriving at the L1 price was also not being done in Haridwar and Trichy units or was done in a non-uniform manner in Hyderabad unit. In contrast, the tender enquiries at Haridwar unit clearly indicated the loading pattern alongwith the interest rates for deviations sought by the vendors for payment terms and for non acceptance of liquidated damages.

The Management stated (January 2010) that uniform evaluation criteria/loading guidelines for major deviations were under finalisation.

6.6.3.3 Cost estimates

(i) Audit observed absence of laid down procedure for cost estimation in the units. The units justified the price offers by applying escalation over the last purchase prices. In Haridwar, Hyderabad and Trichy units this exercise was being done after opening of price bids. The shortcomings noticed in the audit of estimation procedure adopted by the units are discussed below:

(a) In TBG unit, out of 90 sampled cases reviewed in audit, the estimates of 13 cases were based on the budgetary quote of a vendor/last purchase price. In remaining cases, no basis of estimation was provided to Audit. Similarly, in case of PLCC equipment for Mathana, Lohara and Salempur cost estimate was prepared after opening of price bid and negotiations with L1 bidder.

(b) For Bellary –II cooling tower, the PEM unit had estimated the cost at Rs. 64.50 crore based on the cost of Mejia Station-B cooling tower (instead of Bellary I cooling tower which was of similar specifications and was executed at a cost of Rs. 30.07 crore) and justified the bid of Rs. 66.16 crore. The estimated cost for Bellary-II cooling tower after applying escalation factors to Bellary-I cost worked out to Rs. 41.86 crore. Further, in case of Ukai VI cooling tower, the unit estimated Rs. 60.00 crore on accepted rates for Bellary II for justifying the bid of Rs. 64.94 crore, despite the fact that estimates of Bellary II were on higher side as stated above.

The unit stated (August 2009) that the price estimates of Bellary II if worked out on the basis of Bellary –I with escalation as per RBI indices would not have been realistic due to a long time gap. The reply is not convincing as the escalation factors (27.63 *per cent* to 52.97 *per cent*) included in the worked out cost of Rs. 41.86 crore were more than the escalation indicated by the Management (20 *per cent* to 50 *per cent*) in their reply.

(ii) Audit examined cost estimation in 12 cases of LV switch gear in PEM Unit for value of Rs. 111.62 crore and observed that the estimated cost varied between (-) 39.56 *per cent* and 20.90 *per cent* from the actual cost. The detailed study revealed that the estimates were based on vendors' quotes without taking into account 'Standard Bill of Quantity' or conducting independent Market Surveys.

The Management stated (January 2010) that in view of audit observations, guidelines on preparation of estimates would be issued.

6.6.4 Vendors Registration and Development Process

As per the instructions of the Company (August 2005), the supplier performance and rating system of the units was to be audited every year for compliance by units and was to be reviewed once in two years by corporate office for effectiveness. However, nothing was on record to confirm that such audit/review was conducted.

6.6.4.1 Deficiencies in functioning of MISCC and Unit Supplier Review Committee

As per Policy (Clause 3.0 of chapter-I), for the purpose of identification and categorisation of materials, recommendation for registration of suppliers and other related activities, a cross function team termed as Material Identification and Supplier Control Committee (MISCC) is to be constituted. Further, (as per clause 4.01 of Policy) a Unit Supplier Review Committee (USRC), an apex body with Material Management Head as Chairman including members from sub-contracting, Quality, Engineering/Technology/ Indenter, Finance and Supplier Development Cell is to be constituted. It was observed that these committees played a limited role as stated below:

(i) In TBG unit, MISCC held only three meetings. No meeting was held between December 2003 and May 2008. There were no records to indicate that any USRC meeting was held after December 2007. The Management stated (January 2010) that due to shifting of unit from Bhopal, this issue was not given emphasis.

(ii) In PEM, MISCC/USRC, constituted in January 2008, focused only on adding new vendors and reviewed/reassessed the existing vendors only in exceptional cases.

(iii) In Haridwar and Hyderabad Units, information relating to the frequency and decisions taken in meetings of MISCCs were not made available to Audit.

(iv) In Bhopal, MISCC held 39 monthly meetings, against the requirement of 108

monthly meetings for three products and USRC conducted only 12 meetings during the years 2006-07 to 2008-09.

The Management stated (January 2010) that the Company was introducing quarterly Management Information System for monitoring the functioning of MISCC.

6.6.4.2 Limited vendor base

Though more than 50 *per cent* of procurement was through limited tenders, Audit observed that Units had very limited vendor base. In Bhopal, Haridwar, Hyderabad, Noida, PEM and Trichy units there was only a single vendor registered for 538, 286, 16, 302 and 8 material groups respectively. In Bhopal, Haridwar, Hyderabad, PEM and Trichy units, for a large number of products, the number of registered vendors ranged from two to three only, as may be seen in the ***Annexure-XVII***.

The Management stated (January 2010) that efforts had been made/were being made through press tenders/expression of interest/hosting on BHEL intranet, for inviting new vendors.

6.6.4.3 Vendor discovery

As per the Policy (Chapter IX), the Corporate Material Management (MM) was to maintain supplier data of all the units and to share the same with other units. Any such exercise, if carried out, was not on record.

An exercise was made by Audit (July-August 2009) to compare the vendor database for selected products of two BHEL Units *viz*. New Delhi, PEM Noida and TBG with the list of Manufacturers Registered with Confederation of Indian Industry (CII) and it was observed that many of the vendors registered with CII were not registered with the BHEL units indicating inadequate efforts made to widen the vendor base.

Table 6.1

Product and BHEL Unit	Vendors Regd. with CII but not registered with BHEL Units	Effective No. of Registered Vendors with BHEL Units	No. of Orders placed by Units in three years	Value of Orders placed by the Unit in three years (Rs. in crore)
Circuit Breakers-TBG	6	4	43	43.99
Cooling Towers-PEM	1	2	16	251
DG Sets-TBG	5	2	10	8.57
Heat Exchangers-PEM	25	4	40	71
PLCC Equipment-TBG	1	3	24	20.18

Similarly, a comparison with data available on web site of Central Electricity Authority (CEA) (November 2009) regarding vendors available for four products, namely, Ash Handling Plant, Cooling Towers, DM Plant and Fuel Oil System, revealed that the number of vendors registered with the BHEL were far less than vendors available in the market.

Table 6.2

Product and BHEL Unit	Vendors to whom work of 11th plan was awarded according to CEA but not registered with PEM-BHEL Unit	Vendors to whom tender enquiry was sent by PEM- BHEL Unit	No. of Orders placed by Units in 3 years	Value of Orders placed by the Unit in 3 years (Rs. in crore)
Ash Handling Plant –PEM	13	6	2	45.73
Cooling Towers-PEM	10	3	16	251.00
DM Plant-PEM	17	3	6	19.28
Fuel Oil System-PEM	19	9	10	33.66

The Management stated (January 2010) that vendors registered with CII had been obtained and communicated to all the units and the list of CEA vendors would also be obtained and provided to the units. The Management, however, added that the requirement of power plants being very specific in nature and based on generic name of items being manufactured by any firm, it can not be construed that the items being supplied by these firms would be as per BHEL's requirements.

The fact remains that the Company, despite its poor vendor base, did not explore these important sources for procurement of equipment.

Recommendation No. 6.2

- ***The Company needs to visit its limited tendering Policy in view of its thin vendor base and also to bring in more competition.***
- ***Conscious efforts have to be made towards vendor development by appropriate market research which would help in identifying efficient, economical and reliable sources of supply.***

6.6.4.4 Vendors registration and performance assessment

a) Inadequate publicity

As per the Policy (Clause 3.1.3), open tender through press advertisement may be resorted to for enlisting of vendors. It was, however, observed that in Haridwar, Hyderabad, Trichy and TBG units, no press advertisement was issued for enlisting of vendors during the last three years ended March 2009. PEM Noida and Ranipet unit issued one press advertisement each in March 2007 and December 2008, respectively, for enlistment of additional vendors for a few products.

The Management stated (January 2010) that new vendor requirement was being published regularly by the concerned units through web / press advertisements. It further assured that web and press advertisements would be published annually.

b) Delays in Registration

As per Procedure, on receipt of supplier's self assessed form, evaluation should be completed within three months in case of no visit to the firm and five months in case visit is required. Audit observed the following instances of delays in registration of vendors:

Table 6.3

Name of unit	No of vendors not registered within the prescribed period of three/five months	Remarks
Haridwar	94	Out of 94 applications, 90 were pending for more than one year and four were registered after prescribed time.
PEM Noida	230	Out of 230 cases, 52 were pending for more than one year and 97 were pending for more than three months; remaining 81 cases were registered after prescribed time.
Ranipet	40	Out of these, six vendors were pending registration for over one year.
Trichy	11	Out of these, six cases were pending for over six months.

The Management stated (January 2010) that many a time the delay was due to incomplete information submitted by the prospective vendors and subsequent clarifications sought by the units.

The reply is not convincing as the delay of more than six months was justified on the ground of seeking clarifications from the prospective bidders.

6.6.4.5 Vendor database

a) Non sharing of database by the units

As per the Procedure (clause 2.0 of Chapter V), approved suppliers of sister units are exempted from detailed registration procedure provided the suppliers' past performance is satisfactory. Audit observed that information relating to vendors was being shared between Hyderabad and PEM Unit. However, in Bhopal, Haridwar and Trichy units the information was not being shared in respect of steel items and Rotor forgings.

The Management stated (January 2010) that the PMDs of all units were available on Corporate Material Management intranet web page and could be accessed by all units.

The fact remains that the units were not accessing the vendor base of other units as borne out by the replies of Trichy and Haridwar units wherein they accepted that every unit created its own vendor base and procured the items and that they did not contact vendors registered with other BHEL units.

b) Orders/enquiries on banned vendors

The Company has issued guidelines for taking penal action against the vendors, who either fail to perform, or indulge in malpractices. Action could be in the form of hold, delisting or banning a vendor. Audit observed that:

(i) Information regarding banned vendors was not shared promptly amongst all units. Also the Company did not have any mechanism to use the computerised environment for publicizing any punitive action taken/proposed to be taken against a vendor by a unit to other sister units.

(ii) Hyderabad unit banned (March 2006) all business dealings with two firms[18]

[18] M/s Techno Electric and Engg. Co. Limited and M/s GEA Energy System (India) Limited

including their all allied/sister concerns[19] and partners for three years as these firms were found to have indulged in forming a cartel to bag an order quoting higher prices. The ban was lifted on 21 April 2008. Notwithstanding such a ban, the PEM unit awarded three works on the banned firm[20] (Rs. 5.55 crore) and 14 works on its allied/sister concerns[21] (Rs. 21.25 crore) during March 2006 to April 2008 at a total price of Rs. 26.80 crore ***(Annexure-XVIII)*** including POs for which enquiry was issued during the ban period. The PEM Unit Management stated (September 2009) that GEA Ecoflex India Pvt. Limited was not a sister concern of GEA BGR Energy System India Limited. The Management's reply is not acceptable as GEA Germany is the Holding Company of GEA Ecoflex India Pvt. Limited and M/s GEA Energy System (India) Limited.

(iii) Ranipet unit banned a firm[22] for all business dealings in August 2005 and the ban was lifted in June 2008. Though the TBG New Delhi Unit was aware of the ban, still two tender enquires[23] were sent to the banned firm for LT Cables.

The Management stated (January 2010) that information regarding de-listed or banned vendors was being compiled from all units for uploading on Corporate Material Management intranet web page.

c) Deficiencies in database

(i) In TBG Unit, two orders[24] for cables were placed on M/s Havells and M/s Hindustan Vidyut Products Limited respectively, who were not listed in the PMD, though the vendors were reported to be registered vendors. The Management stated (January 2010) that M/s Havells and Hindustan Vidyut Products limited were considered for enquiry on customer approval basis. The reply is not convincing as these vendors did not appear in the PMD.

(ii) In Haridwar, Hyderabad and Trichy units, the basis of inclusion of vendors in PMD was material category and not the material codes which are being allotted for different sizes/capacities within the same material category. Audit observed that most of the vendors registered under a particular material category did not qualify for all material codes (products) under that particular material category. Thus, material category-wise PMD did not show exact vendors registered under a particular material code.

The Hyderabad unit stated (August 2009) that this issue was being addressed in SAP which was under implementation. Haridwar unit stated (January 2010) that the vendors included in PMD are also linked with material code and the limitation if any is shown in PMD by putting $ sign against the vendor. Trichy unit stated that similar material codes are being grouped into material categories for convenience in floating enquiries.

The replies are not convincing as the PMDs did not depict the correct number of

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[19] M/S Gea Ecoflex India Pvt Limited
[20] M/s Gea Bgr Energy System India Limited and M/s Techno Electric and Engg. Co. Limited
[21] M/S Gea Ecoflex India Pvt Limited
[22] M/s RPG Cables
[23] Enquiry No. 342260131 dated 12 December 2006 for Afghanistan Project and No. 342270040 dated 19 April 2007 for Bangladesh
[24] PO 4578277 and 4588340

vendors against a particular material code.

(iii) In Power Sector Western Region, Nagpur, the status of revision of supplier list (required once in three years as per clause 2.9 of Work Instructions for the Unit) was called for from the Management (February 2009). In reply, the Management stated (February 2009) that need for supplier list was not felt especially as in each case approval of competent authority was obtained before floating of enquiry and also that no consolidated vendor list was available.

d) Non updation of database

In terms of Policy (clause 2.2 of Chapter I) the PMDs of units were to be updated regularly. Audit, however, observed that updating was not being done and 29 inactive vendors continued in the PMD in Haridwar, Hyderabad and TBG units giving a false assurance of existence of optimum number of vendors.

The Management noted (January 2010) the audit observation for suitable improvement in the draft supplier evaluation, assessment and review procedure (SEARP).

Recommendation No. 6.3

The centralised vendor database should be made more comprehensive and integrated so as to enable monitoring of vendors' performance at corporate level.

6.6.4.6 Vendor Development

Vendors under trial

As per Procedure, for vendors under trial for a particular material, the units can place maximum three orders. However, in exceptional cases more than three orders can be allowed with the permission of the Head of the unit not below the rank of GM/AGM. After successful execution of minimum three orders under development (Trial) code, MISCC approves the vendor on regular basis. Audit observed that in Bhopal, Haridwar, PEM and TBG units, 28 vendors under development category were awarded more than three orders *viz.* 138 orders valuing Rs. 390.74 crore, without assigning any reasons. Also such vendors were not reviewed for regularisation by MISCC.

The Management noted (January 2010) the audit observation and stated that units are being advised to take appropriate steps to avoid recurrence of such instances.

6.6.5 Award and execution

Audit examined the purchase process starting from indent stage to placement of orders and delivery of material and the following deficiencies were observed:

6.6.5.1 Delays in tender processing

As per Policy (Clause 15), the units should evolve and fix norms for purchase lead time (*i.e.* from the date of indent, raising enquiry, order placement and receipt of material) for different types of materials/components depending on the complexity of the product. No such norms had been fixed by units except Trichy where targets of 60 days to 120 days for conversion of purchase requisitions into purchase orders had been fixed.

A review of time taken for processing of purchase orders from indent stage to the placement of purchase order during three years ended 31 March 2009 revealed that there was a general trend of abnormal delays in the process as indicated below in **Table 6.4**:

Table 6.4

Range	TBG	PEM	HEEP	HPEP	Nagpur	Bhopal	Total	Percentage
0-75 days	11	5	28	64	58	263	429	33
76-150 days	25	30	44	35	17	212	363	28
151-200 days	11	18	13	16	4	99	161	12
201-300 days	22	10	14	23	5	106	180	14
More than 300 days	21	19	4	48	1	77	170	13
Total	**90**	**82**	**103**	**186**	**85**	**757**	**1303**	**100**

The Management stated (January 2010) that the Purchase policy required the units to evolve and fix norms for purchase lead time and non-compliance of this provision by the units as pointed out by audit would be communicated for implementation.

6.6.5.2 Extra cost due to delay in finalisation of purchases

The Company had to incur extra expenditure of Rs. 26.35 crore ***(Annexure-XIX)*** in purchases due to delayed placement of orders. The delays were on account of non placement of orders within original validity period, delay in finalisation of tender enquiry leading to vendors' revision of price bids, seeking snap price bids after expiry of bid validity period and delay in placement of order under rate contract despite rising prices, *etc*. Apart from the extra expenditure indicated above, the delay in finalisaiton of purchases has other costs like liquidated damages levied by the purchasers and potential loss of earnings which was not possible to estimate in Audit.

6.6.5.3 Non placement of repeat orders

As per policy, repeat orders, without calling for fresh tenders can be placed provided there is no downward price trend. However, in Haridwar unit for four products (covering selected six purchase orders valuing Rs. 139.06 crore), the unit did not place repeat orders resulting in an extra expenditure of Rs. 29.09 crore ***(Annexure-XX)***.

The Management stated that decisions were taken in view of the prevailing circumstances but noted the observation.

6.6.5.4 Delayed placement of purchase orders

Audit observed instances of ordering materials by units beyond the delivery schedules indicated in the indents raised as well as schedules committed to the customers as under:

(i) In Hyderabad unit, out of 186 orders reviewed in Audit, 55 orders were placed subsequent to the delivery dates given in the indents. In one case the delay was for 17 months. Further, in the case of three 36.8 MW Steam Turbine Generators (STG) for Naphtha Cracker Project Panipat costing Rs. 104.93 crore, the unit failed to place the orders within the period committed and, thus, had to pay liquidated damages amounting to Rs. 7.63 crore to the customer till January 2009.

(ii) In Trichy unit, out of 170 orders reviewed, indents relating to 77 orders were converted into purchase orders after the expiry of the indented delivery period required for the projects. The delay exceeded 30 days in 53 cases, 60 days in 35 cases and 90 days in 30 cases.

(iii) In PSWR Nagpur, in three orders valuing Rs. 1.90 crore deliveries were sought after the scheduled date of completion of the project, whereas in one case, the indent was raised (November 2007) after scheduled date of completion of work (July 2007). Customers also withheld Rs. 14.65 crore due to delayed completion of work.

The Unit Management stated (January 2010) that advance planning for placing indents was now being done.

(iv) In PEM Noida, in five cases, orders for equipment valuing Rs. 24.95 crore were placed one to 10 months after the required date indicated in the Indent.

(v) In Bhopal Unit, in 170 purchase orders valuing Rs. 191.43 crore were placed subsequent to the delivery dates given in the indents.

The Management stated (January 2010) that delivery dates given in Purchase requisitions were indicative only and actual delivery was regulated in line with the production and project / customer requirements. The reply is not convincing as indents are raised on the basis of actual requirements indicated in the project schedule. The dates of delivery indicated were the scheduled date of requirement for the project which was not adhered to.

6.6.5.5 Reverse auctioning

The Company has recognised Reverse auction[25] as a tool for procurement of material/services for greater transparency at competitive prices and decided that procurement through Reverse auction should be resorted to in upto 25 *per cent* of the total purchases. Audit observed that Hyderabad and Trichy Units achieved 3.81 *per cent* and 2.07 *per cent* of targets leading to savings of Rs. 77.86 crore on the total value of purchases of Rs. 575.42 crore during three years ended March 2009. Despite substantial savings, the Management did not explore the possibility of applying this mechanism for other items across all the units.

The Management stated (January 2010) that though units were encouraged to procure through Reverse auction, there were a number of considerations (*e.g.* market volatility, competition available and vendors willing to participate in Reverse auction) while deciding to procure an item through Reverse auction.

The reply is not convincing as efforts were not made by the units to explore the possibility of using Reverse auction for other items.

Recommendation No. 6.4

Procurement through reverse auction, as per the decided policy may help the Company to reap the benefits of competitive prices.

[25] Reverse auction is a process of procurement by the Company through online bids obtained from technically and commercially acceptable vendors on the Internet at a scheduled date and time through a service provider.

6.6.5.6 Availing of excise and customs duty benefits

In the absence of proper clauses in the tenders, the units failed to avail excise and customs duty exemptions as discussed below:-

Hyderabad and Trichy Units are importing common materials *viz.* Boiler quality plates, Alloy steel plates, Carbon steel plates, high tensile plates, pure Nickel for their production requirements. During the three years ending March 2009, the Hyderabad unit procured material valuing Rs. 138.09 crore which were cleared on payment of duty. Though the materials were issued for duty free projects also, no duty drawbacks were claimed. The amount of duty drawback not availed could not be worked out as details of materials issued for duty free projects were not on record. The unit stated (September 2009) that the drawback claims would be made on completion of the projects. The reply is not convincing as the units are not maintaining separate records for indigenous and imported materials to ascertain the quantities and the value thereof for preferring duty drawback claims. The Management stated (January 2010) that the units were being advised to make drawback claims wherever applicable in due time.

6.6.5.7 Post award relaxation of delivery period

In Bhopal, Hyderabad, Nagpur, TBG New Delhi and Trichy units, there were delays in delivery by the suppliers and in 237 cases delivery period agreed as per purchase orders was subsequently relaxed up to a maximum of 20 months which also led to delay in supplying of the materials to the customers. These cases also included the delays on account of non finalisation of drawings by BHEL and the customers. However, there was nothing on record to pin point the delays on this account.

The Management stated (January 2010) that liquidated damages could only be levied if delay in supply was attributed to vendor.

The reply indicated that all these delays were on the part of the Management which needed to be looked into and avoided. Extension of delivery period to the suppliers without recorded reasons was not justified.

6.6.6 Inadequate internal controls

6.6.6.1 Non adherence of rotation policy in sensitive departments

As per Corporate Guidelines, employees should be transferred from sensitive areas after every four years. A review of placement of executives in the selected units revealed that in Bhopal, Hyderabad, PEM, TBG and Trichy units 115 employees serving in sensitive positions in Material Management, Finance and HR departments, *etc.* were continuing in the same positions for more than four years. The engineering wing which decides technical specifications for a tender has not been classified as sensitive.

The Management stated (January 2010) that this exercise was in progress and such positions had been identified in most of the units.

6.6.7 Conclusion

The Company has witnessed an increasing trend in the cost of procurement of materials *vis-à-vis* its turnover over the last three years. This may be attributed to the substantial purchases through limited tenders with limited vendor base and absence of system of preparing proper cost estimates before purchases. Unit level material identification and supplier review committees need to play a more active role to widen the vendor base and expedite vendor registration and development process. There is a need to review the existing guidelines and develop comprehensive guidelines on procurement to ensure efficient and economical purchases through reliable sources of supply.

The matter was reported to the Ministry in February 2010; their reply was awaited (March 2010).