

## CHAPTER IV : WORKS AND MILITARY ENGINEER SERVICES

### 4.1 Overpayment of water charges by the Garrison Engineer Kamptee

**The failure of the GE Kamptee to repair/replace defective water meter and to regulate payment of bills on the basis of past average consumption as provided in the agreement, resulted in overpayment of about ₹ 4.70 crore to the Nagpur Municipal Corporation.**

The terms and conditions for bulk supply of water to Kamptee Cantonment by the Nagpur Municipal Corporation (NMC) is regulated by an agreement made between the Military Engineer Services (MES) and the NMC, as provided in the Regulations for the MES. As per terms and conditions of the agreement, the NMC would bill the MES [represented by the Garrison Engineer (GE), Kamptee] for the quantity of water supplied, as measured through an electromagnetic flow meter installed at the takeover point by the supplier at the cost of the consumer. The ownership and maintenance liability of the meter was that of the GE. In the event of the meter being found dysfunctional, the quantum of water to be billed was to be based on the assessed average consumption during the period of similar duration in the preceding year.

We observed (January 2010) that as the water meter in Kamptee Cantonment has been dysfunctional from September 2004, the GE has been making payment for supply of water for quantities ranging from 2,13,225 and 2,68,375 units per month (one unit equals 1000 litre), as billed by the NMC on the basis of water pumping hours, instead of regulating payment on the basis of average consumption. The average monthly supply during the preceding year from September 2003 to August 2004 was 2,06,466 units. After the installation of the new meter in January 2011 the quantity of water supplied has been found to be even lesser than this average, thus clearly substantiating excess billing by NMC.

The GE did not get the meter repaired/replaced during the long period from September 2004 to January 2011, even as the repair/maintenance of the meter was his responsibility. The Assistant Accounts Officer of the Defence Accounts Department attached to the GE to function as accountant, primary auditor and financial assistant had also failed to point out the irregular billing for over six years. The overpayment to the NMC during the period from September 2004 to March 2011 on account of non-regulation of payment as per the agreement was about ₹ 4.70 crore.

Thus, failure of the GE to repair/replace defective water meter and to regulate payment of bills on the basis of past average consumption, had resulted in overpayment of about ₹ 4.70 crore to the NMC.

The case was referred to the Ministry in February 2012; their reply was awaited as of July 2012.

#### 4.2 Excess payment of water charges by Garrison Engineer Hisar

**Due to incorrect categorization of the Military Engineer Services (MES) by the State Government, an excess payment of ₹ 12.92 crore was made by MES at Hisar on account of water charges levied by Haryana Government Irrigation Department.**

The Garrison Engineer, Hisar (GE) draws water for drinking and washing purposes from the Haryana Government Irrigation Department for distribution at the Hisar Military Station among the troops and their families. In accordance with the Schedule of Water Rates given in the Haryana Canal and Drainage Rules 1976, as amended from time to time, the water supplied in bulk to municipalities, notified areas and public bodies for drinking and washing purposes was chargeable at the rate of ₹ 3 per 6000 cubic feet. However, the GE paid bills raised by the Haryana Irrigation Department at a rate of ₹ 5 per 2500 cubic feet which was the rate meant for the category 'Other Bulk Supplies'.

In July 2000, the Haryana Government revised the water rates to ₹ 10 per 2500 cubic feet for drinking purposes to public bodies and ₹ 40 per 2500 cubic feet for water drawn for 'Other Bulk Supplies'. The GE paid bills at the revised rate of ₹ 40 per 2500 cubic feet as billed by the Irrigation Department. In October 2007, the Haryana Government again revised the rates for 'Other Bulk Supplies' from ₹ 40 to ₹ 250 per 2500 cubic feet, while retaining the rate of ₹ 10 for the water for drinking purposes. In January 2008, the GE, for the first time, sought clarifications from the Superintendent Engineer, Irrigation Department, Hisar as to whether the rate of ₹ 250 was applicable to Defence as the water consumption was for drinking purposes and not for industrial purposes. In response the Irrigation Department communicated that the rate of ₹ 250 was applicable for bulk consumers. The GE continued to pay the bills at higher rates without taking up the matter at higher levels. Even as the Ambala Cantonment had been paying the applicable rate of ₹ 10 per 2500 cubic feet for the water drawn for drinking purposes, the GE had not ascertained the status from the other Military Stations located in Haryana.

We noticed (December 2010) that the GE was paying water bills at rates meant for industrial and other bulk users, although water was being drawn only for drinking and washing purposes, whereas the civil departments and the Military Engineer Service (MES) formations at other stations in Haryana were paying ₹ 10 per 2500 cubic feet as water for "drinking purposes". Although the Commander Works Engineer Hisar of the MES informed (May 2011) that the matter had been taken up with the State Irrigation Department, it is obvious that the matter has not been effectively pursued with the State Government. Even the Assistant Accounts Officer of the Defence Accounts Department attached to the GE for scrutiny of bills before payment and to act as a primary auditor and financial assistant to the GE had failed to caution the

GE against the imprudence of paying charges at a rate that was not applicable in this case. This resulted in excess payment of ₹ 12.92 crore to the Haryana Government, during the period September 2004 to January 2012.

The Ministry stated in May 2012 that the Haryana Irrigation Department had considered only 6 of the 26 categories of consumers in the Hisar Military Station as those falling in the "drinking purpose category" while others were treated as the "other bulk suppliers category". It added that the Chief Engineer Jaipur Zone had, in October 2011, approached the Haryana Irrigation Department justifying that all the 26 categories of water consumption in Hisar were for drinking purpose only, and the matter was also raised in the Civil Military Liaison Conference Haryana for further discussion with the Chief Minister, which was yet to be held (May 2012). The GE continued to pay for water at the billed tariff to avoid interruption of water supply to troops.

The fact that the case was taken up by the Chief Engineer with higher levels of authority in the State Government, only after we pointed out the matter, reinforces our comment that the matter had not been effectively pursued with the State Government, even though there was glaring disparity in the billing when compared to another Cantonment in the State of Haryana. The Ministry may get the matter vigorously pursued with the State Government to apply the appropriate rate of water charges to the Hisar Military Station, to avoid continued drain of funds from the allocation made for the Defence Services.

#### 4.3 Construction of sub-standard bunkers

**Inadequate soil investigation and lack of proper supervision by the executing engineers and inspecting officers of the Military Engineer Services resulted in construction of substandard bunkers at a cost of ₹ 7.61 crore, which remained unfit for safe storage of ammunition. The bunkers continued to remain defective even after three years of their completion.**

Paragraph 366 of the Regulations for the Military Engineer Services (RMES) stipulates that the Garrison Engineer (GE) should inspect the works in progress under his division as often as possible and, in particular, before these are taken over from the contractor. Similarly, paragraph 367 stipulates that the Chief Engineer (CE) and Commander Works Engineer (CWE) should inspect the works in progress from time to time to ensure execution of works in accordance with the approved plans, use of quality materials, workmanship, etc.

We noticed a case involving construction of 10 'above ground bunkers', an 'ammunition shed' and allied infrastructure at Sunderbani, which manifested lack of proper supervision by the concerned engineering authorities and hasty issue of completion certificate by the GE while clearly ignoring the defects which had been repeatedly pointed out by the user unit.

The construction, which had been sanctioned by the Army HQ, was awarded by the CE Udhampur Zone (CEUZ) in October 2006 to a private firm for

execution by May 2009 at a cost of ₹ 6.72 crore. The GE (North), under whose supervision the work was executed issued (May 2009) a satisfactory completion certificate to the contractor, even though the user Ordnance unit had been repeatedly pointing out various defects in construction. The user's continued reminders to the GE for rectification of defects yielded no tangible results even as the front retaining wall of one of the bunkers collapsed in August 2010.

A Technical Board of Officers which assembled (September 2010) to investigate the case attributed the reasons for the defects and collapse of the retaining wall to improper soil investigation, less foundation depth, foundation resting on filled-up soil, inadequate drainage and improper water proofing etc. and held the executing engineers and inspecting officers responsible for these lapses. It also observed that the contractor had not complied with the site orders given by the representatives of the MES during the period from December 2007 to September 2008. Since the GE had issued satisfactory completion certificate of the work in May 2009, the defect liability period of the contract had already expired in May 2010. The Board, therefore, recommended demolition of the damaged retaining wall and its reconstruction, after thorough soil investigation and redesigning. As of March 2011, the GE had booked ₹ 7.61 crore to the job. The cost of rectification of the damaged portion of retaining wall and associated works, water proofing/ drainage around the bunkers which was estimated (August 2011) at ₹ 4.95 crore, was yet to be sanctioned (May 2012).

The Ministry admitted (May 2012) that improper soil investigation, less foundation depth, improper water proofing, etc. led to defects/ collapse of structures and added that the loss as assessed by a Court of Inquiry (COI) was ₹ 1.77 crore. It also confirmed that the COI had pinpointed the responsibility on the officers concerned and disciplinary action was being initiated.

The case underscores the ineffectiveness of internal controls in the Military Engineer Services. That checks to be exercised at multiple levels within the MES had proved to be ineffective in preventing sub-standard construction of a facility as critical as a bunker in a forward area, despite users raising red flags throughout the construction period, is a matter of deep concern and warrants exemplary action against those guilty of wilfully neglecting their duties.

We recommend (i) speedy implementation of disciplinary action against the delinquent officers for having issued satisfactory completion certificate despite complaints on the quality of the work and (ii) early rectification of defects to enable the user units to take over the bunkers for safe storage of ammunition.

#### 4.4 Extra payment to a Contractor

**Incorrect decision of Contract Accepting Officer for use of admixture in the concrete on additional payment basis, provision for which already existed in the contract, led to an extra payment of ₹ 1.25 crore to the contractor for works relating to an Ammunition Depot.**

Ministry of Defence sanctioned a job (March 2004) for construction of ammunition sheds and allied works for an Ammunition Depot (AD) at an estimated cost of ₹ 58.84 crore. Chief Engineer (CE) Kolkata Zone concluded a contract with a firm (July 2005) for ₹ 44.79 crore for the execution of work. The dates of commencement and completion of the work were 06 October 2005 and 05 January 2008 respectively. The work was actually completed on 05 March 2011.

Our scrutiny (August 2009) showed that the contract provided for mixing and consolidation of cement concrete according to IS-456:2000 with a batching plant to be located outside AD area for incorporation in the works within 20 minutes from the time of discharge from the mixer. Clause 10.3.3 of IS-456:2000 prescribes the use of admixture (retarders/plasticizers/super plasticizers) in the concrete mixing.

The contractor informed the Engineers (04 October 2005) about use of Cement Concrete Pump for pumping the cement concrete within specified time. Simultaneously, they sought approval for use of admixture in the concrete on additional payment basis. Although the Commander Works Engineer (CWE) opined (25 October 2005) that use of admixture in the concrete was not necessary and recommended use of concrete pump only, yet the CE accorded his approval for use of plasticizer<sup>10</sup> as admixture in all the concrete mixes (26 October 2005). The Garrison Engineer (GE) immediately (27 October 2005) conveyed the decision of the accepting officer to the contractor to use the plasticizer in all concrete mixes. The suggestions made by the CWE (03 November 2005) that use of plasticizer was not advantageous technically/functionally and would result in huge infructuous expenditure were again turned down by the CE (16 November 2005) and initiation of draft Deviation Order (DO) was ordered by the CE along with approval in principle (AIP) proforma and draft Star Rates to pay for use of plasticizer in the concrete mixes. Accordingly, the CWE submitted a plus D.O. for ₹ 1.37 crore along with draft Star Rates duly accepted by the contractor to the CE (February 2006) for approval.

After the DO was initiated, the CE who had replaced the earlier CE, rejected the admissibility of plus DO and reversed the decision of previous incumbent on the ground that by virtue of specifications (IS-456:2000) already mentioned in the notice inviting tender against which the contractor had tendered his bid, provision of plasticizer wherever required was deemed to be included in the rate quoted by the contractor and specified in the contract (August 2006). The

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<sup>10</sup> Plasticizer is a chemical admixture that can be added to concrete mixtures to improve workability. It is usually not intended to affect the properties of the final product after it hardens.

contractor protested against this decision and sought for interim Arbitration for extra payment for the work (September 2006). Engineer-in-Chief (E-in-C), Army Headquarters appointed Arbitrator (November 2008), who gave his award (August 2009) in favour of the contractor stating that the contractor was entitled to extra payment for cost of plasticizer along with simple interest at the annual rate of nine *per cent* in terms of approval accorded by the accepting officer in November/December 2005.

Since it was the responsibility of the contractor to increase the slump of the concrete either by increasing the quantity of water and cement or to use plasticizer to achieve the desired specifications, the incorrect decision (November 2005) of the CE as Contract Accepting Officer regarding use of plasticizer in the work with payment as an additional item resulted in extra payment of ₹1.25 crore to the contractor and weakened the Military Engineer Services case in the arbitration proceedings. The resultant extra expenditure on the work was ₹ 1.25 crore (inclusive of interest of ₹ 13.46 lakh).

The Ministry stated (June 2012) that the expenditure could not be termed infructuous since plasticizer increases workability without affecting properties of final product. The reply is unsustainable since the contractor was bound to execute the work at the agreed contract rate by adhering to the prescribed contractual specification. The CE, by agreeing to pay for the addition of plasticizer through a deviation order had committed to pay an avoidable extra contractual payment to the contractor. The culpability of the CE in committing an unwarranted additional liability of ₹ 1.25 crore to the exchequer is a matter of concern and warrants investigation.