# CHAPTER IV: WORKS AND MILITARY ENGINEER SERVICES

### 4.1 Unnecessary payment of consultancy fee

Deviation from the terms of payment to consultant as envisaged in the Cabinet Committee on Security's approval/tripartite agreement, led to asynchronous payments and unnecessary liability of ₹34.48 crore on account of consultancy fee to the consultants, M/s MECON.

Cabinet committee on security (CCS) approved (March 2007) the modernization of Central Ordnance Depots (COD) Agra and Jabalpur at ₹751.89 crore which was to be completed within 45 months i.e.by December 2010.

A tripartite agreement was executed in March 2008 between Ministry of Defence (MOD), Defence Research and Development Organisation (DRDO)/Military Engineer Services (MES) and M/s Metallurgical and Engineering Consultants (India) Limited (M/s MECON) for consultancy and engineering services for modernization of the CODs.

Audit observed (December 2016) that:

(i) As per the CCS approval, consultancy fee was to be paid on firm and fixed basis for a time frame of 45 months for both the CODs. In tripartite agreement, consultancy fee @ 4 per cent (₹30.07crore) of the approved project cost of ₹751.89 crore was catered for. The agreement however, provided that in case actual cost exceeds/ falls short of the approved cost, consultancy fee would be @ 4 per cent of the actual completion cost of the project. Due to delay in execution of the project, the cost of the project was revised to ₹1518.11crore with consultancy fee at ₹64.55 crore (i.e. @ 4 per cent of the revised cost). Thus instead of firm and fixed consultancy fee payable to M/s MECON as per the CCS approval, liability of ₹34.48 (₹64.55 - ₹30.07) crore on account of consultancy fee was created due to incorrect provision in the tripartite agreement.

Chief construction engineer (CCE) (COD)'s reply (January 2017) was silent on the Audit observation (December 2016).

(ii) As per tripartite agreement (March 2008), M/s MECON was to be paid as per the progress made regarding pre and post contract planning including reporting thereon to take corrective measures for timely completion of works.

The consultant was paid ₹30.01 crore up to March 2012, by then only seven (19 *per cent*) out of 37 contracts concluded so far were completed and the overall progress of work as of November 2016 was 42 *per cent*. Thus, payment of ₹30.01 crore made to the consultant by March 2012 was indicative of not being in synchronisation with the progress of works.

CCE (COD) replied (January 2017) that payment to M/s MECON had been made as per the tripartite agreement.

The reply is not acceptable as no details/evidence of payment linked with the progress of the work was furnished. Thus, Audit could not verify the payment *vis-a-vis* the provisions in the tripartite agreement.

The matter was referred to the Ministry of Defence in December 2016; their reply was awaited (January 2017).

# 4.2 Unfruitful expenditure of ₹2.51 crore on part construction of security wall at Central Ordnance Depot, Agra

Failure to ensure availability of site resulted in part construction of wall thereby impinging on security of a Central Ordnance Depot, besides an unfruitful expenditure of ₹2.51 crore.

Military Engineer Services Manual on Contracts 2007 prescribes that before tender is accepted, the Garrison Engineer has to furnish a certificate stating that the site was available for work and was free from all kind of encumbrances.

A contract for construction of security wall, patrolling roads, watch towers, VIP gate office *etc* at Central Ordnance Depot (COD) Agra was concluded by the Chief Construction Engineer (CCE) COD, in January 2010 for ₹9.77 crore. At 25 *per cent* progress (April 2014), the work was foreclosed due to non availability of site. The payment of ₹2.51 crore for the executed work was made on 07 December 2015.The work was at stand still as of July 2016.

Audit observed (August 2016) that there was failure to ensure availability of site, leading to foreclosure of work. Further, by execution of only 25 percent of work, the very purpose of security of the Depot could not be fulfilled. As such expenditure of ₹2.51 crore on part execution of the work was rendered unfruitful.

CCE (COD) replied that certificate relating to availability of site was not traceable and the assets created under this work were being utilized by the users for security of COD Agra.

The reply is not tenable as there was failure to ensure availability of site, leading to foreclosure of work. Consequently, by part-constructing the security wall to the extent of only 25 *per cent*, the intended purpose of security of the user was not achieved and expenditure of ₹2.51 crore on execution of the work was rendered unfruitful.

The matter was referred to the Ministry of Defence in December 2016; their reply was awaited (January 2017).

#### 4.3 Unwarranted expenditure on execution of work

Against the requirement of cantilever type racks on First-in-First-Out system of operation, 2000 racks were constructed for  $\mathbb{Z}5.88$  crore with Last-in-First-Out system of operation. This had resulted in unfruitful expenditure of  $\mathbb{Z}5.88$  crore. Further, an over payment of  $\mathbb{Z}5.88$  crore had been made to the contractor by giving an unwarranted deviation order.

Chief Construction Engineer (COD) concluded (May 2012) a contract with a private firm for design, engineering, manufacturing/fabrication, assembly, shop testing, painting, supply, erection, testing & commissioning of integrated storage system at Central Ordnance Depot (COD) Jabalpur for ₹24.49 crore. Audit scrutiny of the contract revealed following irregularities:-

i) As per approved Detailed Project Report (DPR) for modernisation of COD Jabalpur, cantilever type heavy duty industrial racks were to be provided for storage of Gun barrels with First-in-First-Out (FIFO) system of operation, as prescribed in Director General Ordnance Services, Technical Instruction.

Against the requirement of 2000 numbers cantilever type racks (dunnage blocks), 2000 numbers pallets type racks were constructed for ₹5.88 crore which were based on Last-in-First-Out (LIFO) system of operation. While shifting of Gun barrels by user, it was not possible to remove the Gun Barrels at lower layers without removing Gun barrels in top two layers. Same problem was faced while placing the barrels on the dunnage blocks. Due to changed design the storage of barrels in all three layers is cumbersome process and their maintenance and issue at later stage will result in multiple handling at all stages. The design & storage does not allow FIFO principle without multiple handling and as such the construction of 2000 numbers dunnage blocks had resulted in unfruitful expenditure of ₹5.88 crore.

In reply CCE (COD) stated (September 2016) that design of dunnage blocks was based on the principle that similar type and size of Gun barrels would be kept in the three tiers. The top tier would be retrieved first followed by the

second tier and so on as per requirement. The design is based on LIFO and not on the basis of FIFO as no mention of FIFO concept of storage of barrel was made in the DPR.

The reply is incorrect as in the DPR it was clearly mentioned that for storage of gun barrels, cantilever type racks based on FIFO system of operation is recommended. Further, dunnage system was provided on LIFO system and due to faulty design of dunnage blocks the user is facing problems in handling of the Gun barrels and this design is not allowing the FIFO principle without multiple handling, which is against the norms of inventory management as prescribed in DGOS Technical Instruction.

ii) As per the contract (May 2012), dunnage blocks were to be provided for storage of gun barrels with a diameter of 300 to 500 mm. Weight of dunnage block was to be indicated by the contractor in the tender itself. However, the contractor did not indicate the weight of dunnage block in their quoted tender.

Audit observed (August 2016) that contractor had quoted ₹22,500 per unit for 2000 dunnage blocks without indicating the weight of dunnage blocks as required in the invitation of tender. The dunnage blocks were installed by the contractor. However, plus deviation order of ₹1.57 crore was approved in April 2013 by the accepting officer on account of increase in weight of dunnage block, which was irregular as the dunnage blocks were to be provided by the contractor irrespective of weight. Hence an overpayment of ₹ 1.57 crore had been made to the contractor, which was unwarranted.

The CCE (COD) replied (January 2017) that due to non availability of structural steel ISMC- 250 with 30.4 Kg / RM with the manufacturer as stipulated in the contract, there was no alternative but to procure the ISMC-250 with 34.2 Kg / RM, due to which weight of dunnage blocks had increased and accordingly paid to the contractor.

The reply is not tenable as weight of the dunnage blocks was not indicated in the quoted tender/contract. Hence, extra payment of ₹1.57 crore on account of additional weight of steel was irregular as the dunnage blocks were to be provided by the contractor irrespective of weight.

The matter was referred to the Ministry of Defence in December 2016; their reply was awaited (January 2017).

#### 4.4 Unfruitful expenditure on construction of Security Wall

Chief Engineer, Bareilly awarded contract to a firm for construction of security wall in Cantonment area, Dehradun without correct alignment and demarcation of land. Resultantly, the firm could construct about 40 per cent of security wall with an expenditure of ₹1.95 crore, which proved unfruitful.

In the light of delays in execution of contracted works owing to non-availability of the land free of encumbrances, Headquarters Central Command (HQCC) in August 2009 had directed that process of making the land free of any encumbrance will commence immediately after inclusion of a work in Annual Major Works Programme (AMWP) by the Government. As per the directions of HQCC, it would be incumbent on all Commanders at users' levels to ensure availability of site free of encumbrances and issuance of tender will be contingent upon the site being fully ready for commencement of work.

We noticed that despite the directions of HQCC, a contract for construction of security wall around Defence land was concluded without availability of the site free from encumbrances leading to unfruitful expenditure of ₹1.95 crore. The case is discussed below:

The provision of Security wall along the eastern boundary of Cantonment area from Bindal Bridge to New Cantt road at Dehradun was included in AMWP 2011-12. A Board of Officer (Board) for feasibility study and project documents, held in April 2011, recommended construction of security wall with an overall length of 4300 Metre and height of 3.00 Metre to safeguard the security of Cantonment and to avoid any further encroachment of defence land. Accordingly, HQCC accorded administrative approval in March 2012 for provision of Security wall at an estimated cost of ₹ 4.23 crore.

After receipt of confirmation on availability of site free from all encumbrances from Garrison Engineer (Project), Dehradun (GE(P)), Chief Engineer Bareilly concluded (September 2012) a contract for construction of security wall at a lump sum cost of ₹ 3.29 crore with scheduled commencement and completion as 19 October 2012 and 18 April 2014 respectively.

However, the work could not be commenced as complete alignment of the wall had not been finalised by the Project Management Group (PMG). On confirmation of alignment from PMG in November 2013, construction was started. In February 2014 when the progress of the work was 32 *per cent*, Commander Works Engineer instructed the contractor to stop the work as exact alignment for the security wall was not finalised by the PMG. Subsequently the work pertaining to sentry post, columns concreting above

ground level and mid beam started in April 2014 on some stretches without exact alignment as the dispute between Defence and Civil authorities on the exact boundary still persisted. Further, Irrigation Department (State Government, Uttarakhand) also opined that the construction of wall may lead to threat to human lives adjacently staying along the river during floods. To resolve the dispute, joint survey and demarcation of defence land was carried out (June 2014) by Defence Estate Officer (DEO) along with Civil Revenue Officers but the issue remained unresolved till yet (April 2016).

Owing to persisting dispute with civil authorities and frequent disturbances from local people, contractor after completing the work of 1664 Metre in stretches (1379 Metre in river bed and 285 Metre in other than river bed) stopped the work in September 2015 after getting total payment of ₹ 1.95 crore and filed a writ petition in "High Court Nainital" on 03 March 2016 seeking arbitration for extra payment of ₹1.50 crore. In April 2016, HQ Uttarakhand Sub Area decided to restrict total length of the security wall as 2663 Metre, as construction on balance length was found not possible as per site condition. It was proposed to HQ CC to foreclose the balance work stating that the balance amount of the contract i.e. ₹2.28 crore can be utilised for remaining work after getting clearance of exact alignment and demarcation of land from DEO and State Revenue Department. However, neither the work of 2663 Metre was completed by the contractor nor the proposal for foreclosure was approved.

As stated by the Chief Engineer, Bareilly Zone (April 2016), stone crating work, which was necessary to hold the pressure of water and reduce the speed of water flow, was not done by the contractor on stretches of wall constructed in the middle of river bed. In the absence of stone crating work, there was risk of wall being washed away during floods and there was threat to human life as well.

Thus, conclusion of the work contract without correct alignment/demarcation of site and assessment of requirement of work, ignoring the instructions of HQ Central Command, had resulted in unfruitful expenditure of ₹1.95 crore as major portion (61 *per cent*) of security wall originally approved remained incomplete. The main purpose of safeguarding the security of Cantonment and to avoid encroachment of defence land was defeated due to non-completion of work. Besides, the contractor had claimed additional amount of ₹1.50 crore through Court of law due to abnormal delay in execution of work on the part of the department.

The matter was referred to the Ministry of Defence in August 2016; their reply was awaited (January 2017).

### 4.5 Excess payment of electricity charges amounting to ₹ 32.13 crore

Maharashtra State Electricity Distribution Company (MSEDCL) introduced, in August 2012, a new tariff for consumers providing public services, which also included defence establishments. MSEDCL further introduced separate tariff, in June 2015, for government educational Institutes & hospitals and other Defence establishments falling under the category of public services. However, seven Garrison Engineers, who received electricity in bulk from MSEDCL for supply to defence educational institutes, hospitals and other defence establishments, failed to exercise checks on the correctness of tariff applied before making payment to MSEDCL, resulting in excess payment of ₹ 32.13 crore.

Garrison Engineers (GEs) are responsible to enforce pre-check on the electricity bills before making payments to State Electricity Supply Agency (SESA).

The Comptroller & Auditor General's Audit Reports have recurrently reported about overpayments made by Garrison Engineers (GEs) to the SESA. In its Action Taken Note (ATN) of August 2006, the Ministry of Defence (MOD) had stated that instructions had been issued to the concerned staff to be more careful and scrutinize the electricity bills thoroughly before making payment to the SESA in future. In another ATN (July 2014), MoD had stated about disciplinary action initiated against erring officials.

Audit however noticed that seven Garrison Engineers (GE) made excess payment of ₹32.13 crore towards electricity charges due to incorrect application of tariff as discussed in succeeding paras.

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(i) GE (South) Pune receives electricity from MSEDCL and further supplies to two hospitals *viz* Command Hospital (CH) and Military Hospital, Cardio Thoracic Centre (MH CTC) and one educational institute *viz* Armed Forces Medical College (AFMC) through separate connections. GE (MH), Kirkee supplies electricity to MH, Kirkee through two connections.

Audit scrutiny (March 2016) of the paid electricity bills at GE(S) and GE(MH) revealed that in respect of CH and AFMC, MSEDCL had been billing the electricity charges at the rate applicable to 'commercial' category from September 2012 onwards. In respect of MH CTC and MH Kirkee, the rate

applied by MSEDCL from June 2015 was at rates other than the applicable category for government hospitals and educational Institutes. Thus, both the GEs had made payments without verifying the correctness of the rate applied by MSEDCL.

On being pointed out(March 2016) in audit, GE(S) took up the matter with MSEDCL, who agreed(March 2016) to carry out site verification to assess the actual purpose of usage of electricity so that appropriate tariff could be imposed. GE (MH), Kirkee stated (March 2016) that MSEDCL was being approached to get the refund. This resulted in excess payment of  $\mathbb{Z}$  13.02 crore at GE(S) and  $\mathbb{Z}$  1.19 crore at GE (MH) Kirkee up to November 2016, by when the issue had not been finalized.

(ii) Audit examined the case at two other GEs which supply electricity to educational institutes *viz* National Defence Academy (NDA), Khadakwasla and Defence Institute of Advanced Technology (DIAT), a deemed University.

NDA, Khadakwasla receives electricity, including for its residential area, from GE (NDA) through single connection. 65 *per cent* of the consumption was billed at residential rate. However, the balance 35 *per cent* was billed at other than the applicable category for government hospitals and educational institutes. The excess payment worked out to ₹1.17 crore from June 2015 to November 2016.

GE (R&D), Girinagar caters for electricity supply to DIAT, including its residential area. Audit noticed that the electricity consumed by DIAT for educational purpose was billed at commercial rate.

On pointing out in Audit, GE (R&D) Girinagar took up (August 2016) the case with MSEDCL, response was awaited as of November 2016till when an excess payment of ₹ 2.03 crore had been caused.

(iii) Audit also noticed that four GEs<sup>18</sup> who supply electricity to various defence establishments other than educational institutes/hospitals, paid electricity bills under 'commercial' category since August 2012/June 2015 respectively, resulting in excess payment of ₹14.72 crore till November 2016.

In reply, Chief engineer, Pune Zone (CE PZ), Pune stated(November 2016) that military hospital (MH) is not defined under the category 'public services-government hospitals' and that MH provides services to military troops only and not to public. It was also stated that MSEDCL recognizes only one tariff category for defence establishments and they are unwilling to give any further concession stating that the criteria had already been fixed for defence establishments. CE PZ, however, stated that they were continuing to put

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<sup>&</sup>lt;sup>18</sup>GE R&D, Girinagar, GE(North), Pune, GE(Central), Kirkee and GE, Deolali

pressure on MSEDCL to offer further benefit by changing tariff category, wherever feasible.

The reply is not tenable, as the tariff as per the MSEDCL order of recategorisation of its consumers made in June 2015, is equally applicable to all central government educational institutes and hospitals and as all the MHs and defence educational institutes are functioning under the MoD, which comes under the central government, the tariff category is also applicable to all these consumers

The case was referred to the Ministry (October 2016), their reply was awaited (January 2017).

#### 4.6 Non utilization of assets

Failure of Chief Engineer, Bareilly to make clear provision of bypass road in drawings and to incorporate the complete scope of work in the contract had resulted in non-completion of the road. As a result, Explosive Dump constructed in May 2014 at a cost of ₹7.65 crore could not be utilized.

Manual of Contracts 2007 stipulates that the complete, fully detailed and exact scope of work required to be done under the lump sum contract<sup>19</sup> is laid down by way of drawings and specifications incorporated into tender documents. Further as per para 408 of Regulations for the Military Engineer Services (RMES), 2006, when contract is to be based on drawings and specifications, special care is necessary that the drawings and specifications are complete in every particular.

We noticed during the audit of Chief Engineer, Bareilly Zone, Bareilly (CE) (August 2016) that non incorporation of work relating to the construction of a road by-passing the site of ammunition dump in the drawings of the contract had resulted in non-utilization of assets created at the cost of ₹7.65 crore. The case is discussed below:-

In order to shift the explosive from temporary shelters of a unit close to civil area, a Board of Officers (BOO) for the purpose of reconnaissance, siting and costing held in August 2010 recommended for construction of Explosive Dump for Bengal Engineer Group (BEG) & Centre, Roorkee along with single living accommodation of guards/sentries and shifting of existing approach road to villages, passing through the site to maintain Outer Quantity Distance (OQD), of 280 metre. The length and width of bypass road to be shifted was

<sup>&</sup>lt;sup>19</sup>In lump sum contract, the contractor undertakes to carry out the work to completion for a fixed sum.

assessed as 1000 metre and 3.75 metre respectively with culvert as per site condition.

Based on the recommendation of the BOO, Integrated Headquarter of Ministry of Defence (IHQ, MoD) in March 2011 accorded sanction for provision of explosive dump at an estimated cost of ₹8.48 crore. Accordingly contract was accepted (October 2012) by the CE for lump sum of ₹7.65 crore. The work commenced in November 2012 and was to be completed by May 2014.

During progress of the work, the contractor noticed that while there was requirement to provide a bypass road to the work site for connecting nearby villages, this provision had not been catered for in the drawings of the contract agreement. As intimated (April 2013) by the contractor to the CE, construction of the bypass road entailed extra works, viz. small bridge over the huge nala, earth filling in the low lying areas to bring up the levels to 1.20 metre high and some measures to retain the earth. Commander Works Engineers (CWE) (Hills) Dehradun accepted (June 2013) that the bypass road was erroneously not shown in the drawing and not accounted correctly in the contract. As the estimate for these works was worked out to be ₹62.43 lakh, which was beyond the prescribed limit of the deviation (10 per cent) of the contract, the Chief Engineer delegated (January 2014) an amount of ₹22.51 lakh to CWE for construction of culverts, toe wall & drain and filling of soil in low lying area, to be executed through a separate contract. Balance work, viz, surfacing of the bypass road was to be carried out through running contract. Accordingly, CWE in May 2014, concluded the separate contract with another firm and the work was to be completed by November 2014. These works were completed by December 2015 at a cost of ₹23.55 lakh.

For balance work of road surfacing, when GE Roorkee asked the contractor of the main project to procure requisite materials, the contractor requested (June 2014) for issue of completion certificate stating that all works within the scope of the contract had been completed by May 2014 and construction of by pass road was beyond the scope of the contract. The claim of the contractor was refuted by the GE (July 2014) stating that road works including some other works had not been executed by the contractor. But the contractor submitted the final bill on 16 August 2014. MoD went for arbitration against the alleged completion which is still pending for final disposal. The contractor submitted the final bill in August 2014 which was returned by the GE, Roorkee. The contractor appealed in the High Court, Uttarakhand and the Arbitrator was appointed by the High Court in December 2014. Since then, the case is in arbitration awaiting finalisation (December 2016).

As of December 2016, total expenditure of ₹7.65 crore had been booked against the job. In the absence of bypass road, utilization of assets so created

was not possible (August 2016) due to non-diversion of civil traffic from the existing road passing through the ammunition dump area.

CE, in their reply to audit, stated that road work is always variable service under various ground factors and marking of the road on the drawings was nearly impossible. The reply is not acceptable as the regulations clearly stipulate that the drawings and specifications should be complete in every particular in case of such contract. Further, the omission of the road from the drawing was also accepted by CWE based on which separate contract under delegated powers was sanctioned.

Thus, the case revealed that CE had failed to include the work of bypass road in the drawings of the tender documents and to incorporate the correct scope of work pertaining to construction of the bypass road in the contract. As a result, construction of bypass road could not be completed leading to non-utilization of ammunition dump which was constructed at a cost of ₹7.65 crore more than 2 years ago.

The matter was referred to the Ministry in October 2016; their reply was awaited (January 2017).