



:020-26133148
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REGSDSDS / BY POST

Superintending Technical Examiner (SC)
PCDA (SC) Complex, No.1, Finance Road
Pune – 411 001

1244/226/ 02/Q/ADGTE

Dec 2018

Garrison Engineer
Panaji
PIN – 900 197
C/o 56 APO

SITE VISIT : CEPZ/MUM-24 OF 2017-18

1. Refer inspection conducted by STE team on 12-14 Dec 2018.
2. The copy of factual statement of the work is held on your record. The obsns on account of above mentioned visit are enclosed as Appendix 'A'. The obsns apply to the entire work except where otherwise specially mentioned. No action for price adjustment/deviation has been initiated till date of insp.
3. Please take suitable action to get the defective work rectified as mentioned on factual notes/obsns and ensure compliance. If, however, the defects are not rectifiable and the defective work as executed is technically acceptable to you, please forward the details of overpayments invoiced for such defective work accepted.
4. Please ref to E-in-C's Branch letter No 41000/E4 dated 14 Oct 1981 and take necessary further action to ensure that the defects are not allowed in the current works in your area and remedial actions are taken. This should be taken in other cases also including financial recovery.
5. Please furnish your specific replies to obsns within 06 weeks failing which the matter may have to be reported to Higher Authorities. In this connection please ref to Sec 23 of Manual of Contracts, 2007.

Encls : As above

(Satish Chander, IDSE)
STE SC, Pune

Copy to :-

HQ ADGTE, New Delhi

.. For info & necessary action alongwith obsns.

HQ CE Pune Zone
Pune – 411 001

1. For info & necessary action. Obsn may please be replied incl conditions.

CWE (Army) Mumbai
PIN- 900 497
C/o 56 APO

2. Please refer to Sec 23 of Manual of Contracts, 2007 and issue suitable instruction to all other GEs under you with a view to prevent acceptance of similar defective work in those divisions where such defects are suspected to be occurring. Financial recoveries as applicable may be effected in similar works also.

Stn HQ, Panaji
PIN- 900 197
C/o 56 APO

3. Systematic corrective measures be instituted in all units of your AOR (Area of Responsibility).

SUPERINTENDING TECHNICAL EXAMINER
(SOUTHERN COMMAND) PUNE
NO. 01 FINANCE ROAD, PCDA (SC) COMPLEX, PUNE - 411 001

TECHNICAL EXAMINATION OF CONTRACTS / WORKS / FINAL BILLS

CA No	CEPZ/MUM-24 OF 2017-18	Amount (in lakhs)	2149.80 lakhs	Location	Panaji				
Name of Work	Provn of Defi OTM Accn at Bambolim (Phase-I), Goa								
(a)	Contractor	M/s N H Saluji & Associates							
(b)	Date of Commencement	25 Aug 2017							
(c)	Completion as per CA	24 Feb 2019							
(d)	Extended date of completion	-							
(e)	Actual date of Completion	-							
(f)	DV No & Date of final bill if paid	-							
(g)	Whether ADGTE visited project (if yes, date)	-							
(h)	Name of STE / TE	Name of MESOffrs Accompanying							
	Shri Satish Chander, IDSE, STE SC Pune Lt Col Bhaskar Rautela, TE Lt Col Pankaj Jaswal, TE Shri Manish Raj, IDSE, TE	LT Col Sameer Arora, DCWE B/R(CEPZ) Maj Manish Nair, GE Panaji Capt Sandeep Negi, AGE B/R Project							
(k)	Inspection Summary :								
	No Inspection	Ist Check		2nd Check		3rd Check			
(i)	Date of Check	12-14 Dec 2018		-		-			
(ii)	Progress %	Actual	Target	Actual	Target	Actual	Target		
	24.47%	-	-	-	-	-	-		
(iii)	Obsn Nos Raised	Ist	-	2nd	-	3rd	-		
(iv)	Total Obsn Raised	19							
(v)		Minor	Maj	Adv	Minor	Maj	Adv		
		-	-	-	-	-	-		
(vi)	Obsn Split	B/R		E/M		B/R		E/M	
(vii)		19		-		-		-	
(viii)	Total Settled	-		-		-		-	
(ix)	Outstanding Obsn	19		-		-		-	
(x)	Outstanding Obsn (Check wise)	19		-		-		-	
(xi)		IRNR		19		IRNR		-	
(xii)	Net Outstanding Obsns	19							
(xiii)	Date of Expiry of DLP (where wk 100% completed)	-							

CA No : CEPZ/MUM-24 of 2017-18
Name of Work : Provn of Defi OTM Accn at Bambolim (Phase-I), Goa
Amount in lakhs : ` 2149.89 Lakhs

OBSNS ON ADM APPROVAL, PLG & TS

-NIL –

OBSERVATION ON CONTRACT & SITE DOCUMENT

-NIL –

OBSERVATION ON SITE INSPECTION (MAJOR)

1. **Obsn No 01 : Slow Progress.** Work is running behind schedule. The date of commencement of work was 25 Aug 2017. The period of completion as per CA is 545 days (appx 18 months) and original date of completion is 24 Feb 2019.

(a) The overall progress at present as per CA should have been more than 85 % whereas the same is 24.47% as per executives. The actual physical progress at ground was found to be appx 10 % only. You are requested to fwd specific reasons for the delay and action taken to expedite the completion of work. Fwd your reply through AO.

(b) Since progress of the work is very slow, you are requested to intimate why requisite action has not been resorted to in terms of E-in-C's Branch policy letter No. 16/2014 issued vide letter No A/37696/OSDPL/POL/E2 (PPC) dt13 Aug 2014 which states clearly that "Contracts having period of completion more than twelve months shall have performance evaluation meetings at intervals of every six months from the date of commencement indicated in work order No 01. These shall be held at the work site on a date fixed well in advance to ensure presence of all concerned. These meetings shall be attended by the Accepting Officer, CWE, GE, AGE, representatives of CE's office [E8, E2 (Design), E6, E2 (Plg) and E4], contractor and the PMG. The present progress of wk and reasons for any delay shall be analysed and time-bound action plan to remove any encumbrances/bottlenecks will be discussed in detail. In case extension of time is contractually and circumstantially due, it shall be deliberated upon". You are also requested to forward details of review meetings held if any.

2. **Obsn No 02 : CPM Chart.** CPM chart/ time and progress chart not found updated at site. It is not understood how the progress of work is being monitored in absence of same. PI update the same and confirm. Also accept penal recovery of `5,000/- for not maintaining CPM chart as per CA.

3. **Obsn No 03 : Reinforcement Bar/ Steel.** Steel reinforcement found embossed with Fe 500 D Goel TMT CRS bars of Shri Bajrang Power & Ispat Ltd. Reinforcement bars found rusted and cement slurry not properly applied. In view of above, carry out the following:-

(a) PI provide cement slurry on steel reinforcement bars and intimate cost.

(b) Also accept penal recovery of Rs 5000 for not adhering to CA provisions.

4. **Obsn No 04 : Steel Stirrups/Tie bars.** Steel found bent at 90 degree for hooks in lieu of 135 degree. Hook length is also found less at places. Cross ties not bound properly. Please rectify defects and intimate cost. Please confirm through AO that same defects were not there in already casted concrete. Please accept penal recovery of `10,000/- for this lapse. You are also requested to take corrective action to ensure that such lapses do not occur in future.

5. **Obsn No 05 : Extra Reinforcement Bar.** Extra top reinforcement bars at supports in plinth beams have not been found provided at certain places .Please identify defective area and provide the top reinforcement bars before concreting. Intimate cost along with photographs. You are also requested to take corrective action to ensure that such lapses do not occur in future.

6. **Obsn No 06 : RCC Columns.** RCC Columns of Size of 515 mm x 355 mm found constructed. Date of casting not found written on any column. Columns found casted in single lift of 2.15 mtr. Cover found varying from 15 mm to 20 mm in lieu of 40 mm. Adequate curing of RCC not found carried out. Some columns found twisted. In view of above, Please carry out the following:-

(a) Please identify twisted columns, dismantle and recast them properly. Intimate rectification cost.

(b) You are also requested to take corrective action to ensure that RCC work is progressed as per proper engineering practice and provisions in CA. Accept a penal recovery of Rs 15000 for poor workmanship and not adhering to CA provisions.

7. **Obsn No 07 : Compressive Strength of RCC.** Compressive strength of various RCC columns/beams checked randomly using rebound hammer and the values found between 18 to 20 N/mm² for M-30 Grade of concrete. You are requested to get confirmatory NDT and concrete core tests carried out from some independent agencies viz SEMT wing of CME Pune or Govt Engineering College /IIT and forward results. Also fwd your comments through Chief Engineer for the less compressive strength obtained at site along with proposed remedial measures.

8 **Obsn No 08 : Return & Filling.** Return & filling carried out with soil found done improperly by burying boulders of size 2 to 3 feet long and under floors earth filling not found rammed in layers as per CA provisions. Please rectify the defects by removing the stone boulders and filling approved earth in layers and rammed as per CA provisions and confirm along with rectification cost. Also accept lump sum penal recovery of `10,000/- for not adhering to CA provisions.

9. **Obsn No 09 : Steel Props.** Single steel props scaffolding found provided without provision of adjustable height arrangement for brick work & plastering work. Jacks also not found provided. Holes in brick masonry of walls of garage found left open & unfilled. Kindly ensure Double Scaffolding with provisions of jacks and adjustable steel props in the balance work and confirm. Also accept lump sum recovery of ` 5000/- for the same.

10. **Obsn No 10 : Dwarf Wall.** In drawings no provision of dwarf wall has been found considered beneath the Plinth Beams of external walls. However, as per Para 6 of Schedule 'A' Notes, dwarf wall in situations like verandah, passage etc not indicated in drawings shall deemed to be included in the lump sum quoted by the tenderer. In view of the same :-

(a) Please fwd reasons through AO for not considering provision of dwarf wall beneath the Plinth Beams of external walls.

(b) Please ensure construction of dwarf wall in situations as indicated in para 6 of Schedule 'A' Notes and intimate cost.

11. **Obsn No 11 : Fly Ash Bricks.** Fly ash bricks measuring size 230 mm x 110 mm x 75 mm found used for garages. Make is not marked on bricks but frog exists. No test record produced. In view of the above, please carry out the following:-

(a) PI carry out independent tests of fly ash brick and fwd test report . Also accept penal recovery of Rs 5000 for not carrying out the tests.

(b) PI fwd credentials of the fly ash brick manufacturer and confirm that the manufacturer selected as per instructions laid in CA Clause 5.23.1

12. **Obsn No 12 : Site Engineer.**

Srl No.	Names Of Site Engineers	Year Of Experience	Degree/Diploma
1	Murtuja H Najmuddin	18 Yrs	BE (Civil)
2	Mustafa H Najmuddin	20Yrs	BE (Civil)
3	SantoshLandgeKhandu	06 Yrs	Diploma in civil engineering
4	AnandGanpatAghav	06 Yrs	Diploma in civil engineering

Degree/diploma qualification certificates of above site Engineers were not produced to STE team at site. Also the details and mode of payment made by contractor to these site Engineers were not available with the contractor. Please forward the above mentioned documents duly signed by Garrison Engineer and contractor for our perusal.

13. **Obsn No 13 : Qualified Tradesmen.** Adequate number of qualified tradesmen not found employed. No record found maintained in support of deployment of qualified tradesmen. Number of ITI qualified tradesmen employed at site not found adequate as per CA. The CA stipulates that the No of ITI/NICMAR/NAC qualified tradesmen shall not be less than 25% of total skilled/semiskilled tradesmen. Please fwd reasons for such lapse and carry out appropriate recovery. Also ensure that same is adhered to in balance work.

14. **Obsn no 14 : Site Lab.** Site lab established in an old room. Following eqpt found in site lab-Electronic weighing machine, Oven was not functional, test sieve sets, Flakiness Index test guage, elongation index test guage, silt jar, slump cone and manual compressive test machine .Calibration of manual compressive test machine machine carried out on 10 Oct 18. Site lab have been found poorly equipped. All necessary testing equipments required for site lab for conducting specified tests as per CA not found installed by the contractor.

Please ensure that the site lab is fully equipped with serviceable and calibrated equipment's and technicians as per CA provisions. Also accept lump sum penal recovery of ` 20,000/- for not maintaining fully equipped site lab till date.

15. **Obsn no 15 : Material Lying at Site.** Steel reinforcement bars found dumped on existing ground surface without any dunnage underneath. Steel reinforcement also found partly rusted and partly applied with cement slurry. Huge quantity of steel found procured and

780 MT found paid as material lying at site as per last paid RAR. In view of above, carry out the following:-

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(a) Please stack the reinforcement steel as specified in CA & SSR Part-I 2009 and take preservative action by applying cement slurry on steel surface. Please confirm along with the rectification cost. Please accept lump sum penal recovery of ` 10,000/- on this account.

(b) Please fwd reasons for allowing the contractor for procuring the entire steel to be incorporated in the work in the beginning whereas, ideally the steel should have been procured in stages in accordance with CPM chart agreed between GE and the contractor to avoid deterioration of the same. Fwd your reply through CE.

16. **Obsn no 16 : Water.** Water being used is of a bore well and water testing carried out on 14 Mar 2018. It is not understood how quality of water has been ascertained during progress of work when only one testing carried out. You are requested to get water tested and forward report. Accept penal recovery of ` 5,000/- for this lapse.

17. **Obsn no 17 : Cement.** Cement of make 'M/S Dalmia' OPC-43 Grade found stacked in haphazard manner in lieu of stacked on dunnage in header and footer pattern. Certain cement bags found set. Kindly ensure that storage/preservation of cement is done as per CA provisions and confirm along with photographs of the same. Also accept lump sum penal recovery of Rs 5000/- on account of poor storage of cement.

18. **Obsn no 18 : RMC Plant.** Automatic batching plant found established at site by the contractor, the make and capacity of which could not be ascertained. Batching plant found nonfunctional during site visit by STE team. No batching reports produced to the STE team. Calibration of batching plant carried out on 01 Nov 18 as per executive. As per CA fully automatic plant of capacity 20 Cum/Hr is to be installed. In view of above, carry out the following:-

(a) Please fwd permission of CWE for establishment and use of RMC plant for construction.

(b) Please fwd documentation of automatic batching plant.

(c) Please fwd proper documentation of batching report. Explain how the quality of concrete is ensured/ monitored in the absence of proper documentation of batching reports through AO.

(d) Also accept penal recovery of `10,000/- for not maintaining proper documentation as per CA .

19. **Obsn No 19 : Appx 'F'.** Appx 'F' of 'Quality Assurance Manual' not found filled by GE/CWE/CE as per E-in-C's Branch letter No A/37696/OSDPL/POL/E2 dt (W)/PPC dt 25 Aug 2014 and ADGTE letter No 98148/Policy/60/Q/ADGTE dt 09 Sep 2014. Performance evaluation of work not being carried out periodically. Performance evaluation and monitoring of works is a mandatory requirement and deviation from this important clause is a serious lapse. Please carry out performance evaluation of this work at regular intervals and confirm along with supporting reports.

(Satish Chander, IDSE)
STE SC Pune

MINOR OBSERVATION

CA No : CEPZ/MUM-24 of 2017-18
Name of Work : Provn of Defi OTM Accn at Bambolim (Phase-I), Goa
Amount in lakhs : ₹. 2149.89 Lakhs

-NIL-

(Satish Chander, IDSE)
STE SC Pune

IMPORTANT OBSERVATION

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Please ensure that the site lab is fully equipped with serviceable and calibrated equipment's and technicians as per CA provisions. Also accept lump sum penal recovery of ` 20,000/- for not maintaining fully equipped site lab till date.

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11. **Obsn no 15 : Material Lying at Site.** Steel reinforcement bars found dumped on existing ground surface without any dunnage underneath. Steel reinforcement also found partly rusted and partly applied with cement slurry.

Huge quantity of steel found procured and 780 MT found paid as material lying at site as per last paid RAR. In view of above carry out the following:-

- (a) Please stack the reinforcement steel as specified in CA & SSR Part-I 2009 and take preservative action by applying cement slurry on steel surface. Please confirm along with the rectification cost. Please accept lump sum penal recovery of ` 10,000/- on this account.
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- (a) Please fwd permission of CWE for establishment and use of RMC plant for construction.
- (b) Please fwd documentation of automatic batching plant.
- (c) Please fwd proper documentation of batching report. Explain how the quality of concrete is ensured/ monitored in the absence of proper documentation of batching reports through AO.
- (d) Also accept penal recovery of `10,000/- for not maintaining proper documentation as per CA .

13. **Obsn No 19 : Appx 'F'.** Appx 'F' of 'Quality Assurance Manual' not found filled by GE/CWE/CE as per E-in-C's Branch letter No A/37696/OSDPL/POL/E2 dt (W)/PPC dt 25 Aug 2014 and ADGTE letter No 98148/Policy/60/Q/ADGTE dt 09 Sep 2014. Performance evaluation of work not being carried out periodically. Performance evaluation and monitoring of works is a mandatory requirement and deviation from this important clause is a serious lapse. Please carry out performance evaluation of this work at regular intervals and confirm along with supporting reports.

(Satish Chander, IDSE)
STE SC Pune

