
 : 020-26133148
 : 020-26052869

REGDSDS / BY POST

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

721/351/15/Q/ADGTE

Dec 2018

Garrison Engineer (Project)
Vasco-da-Gama (Goa) -403802

SITE VISIT : CENM-18 OF 2015-16

1. Refer inspection conducted by STE team on 11-13 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.

(Satish Chander, IDSE)
STE SC, Pune

Encls : As above

Copy to :-

- | | | |
|------------------------------------|---|---|
| HQ ADGTE, New Delhi | } | - For info & necessary action alongwith obsns. |
| HQ Chief Engineer
(Navy) Mumbai | | 1. For info & necessary action. Obsn may please be replied incl conditions. |
| CWE (NW) Vasco
380 003 | | 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. |
| Station HQ
INS Mandovi | | 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	CENM- 18 of 2015-16	Amount (in lakhs)	. 1673.57 lakhs	Location	Mandovi		
Name of Work	Provn of Deficient single officer living accn & officers mess at INS Mandovi.						
(a)	Contractor	M/s S N Construction					
(b)	Date of Commencement	30 Nov 2018					
(c)	Completion as per CA	-					
(d)	Extended date of completion	-					
(e)	Actual date of Completion	18 Jul 2016					
(f)	DV No & Date of final bill if paid	-					
(g)	Whether ADGTE visited project (if yes, date)	-					
(h)	Name of STE / TE	Name of MES Offrs Accompanying					
(j)	Shri Satish Chander, IDSE, STE SC Pune Lt Col Bhaskar Rautela, TE Shri Manish Raj, IDSE, TE Lt Col Pankaj Jaswal, TE	Shri Naveen Tiwari, IDSE, EE, GE Smt Juli Baiju, AGE (B/R) Shri S S Jadhav, AGE (E/M)					
(k)	Inspection Summary :						
	No Inspection	1st Check		2nd Check		3rd Check	
(i)	Date of Check	07 Sep 2016		11-13 Dec 2018		-	
(ii)	Progress %	Actual	Target	Actual	Target	Actual	Target
		35%	-	88%	-	-	-
(iii)	Obsn Nos Raised	1st	19	2nd	26	3rd	-
(iv)	Total Obsn Raised						
(v)		<u>Minor</u>	<u>Maj</u>	<u>Adv</u>	<u>Minor</u>	<u>Maj</u>	<u>Adv</u>
		-	19	-	-	26	-
(vi)	Obsn Split	B/R		B/R		B/R	
(vii)		18		21		-	
(viii)	Total Settled	01		-		-	
(ix)	Outstanding Obsn	17		21		-	
(x)	Outstanding Obsn (Check wise)	17		21		-	
(xi)		IRNR		IRNR		IRNR	
		-		26		-	
(xii)	Net Outstanding Obsns	1 st Check 18 + 2 nd check 26 = 44					
(xiii)	Date of Expiry of DLP (where wk 100% completed)						

CA No : CENM – 18 of 2015-16
Name of Work : Provn of Deficient single officer living accn & officers mess at INS Mandovi.
Amount in lakhs : ` . 1673.57 Lakhs

PART – A : REVIEW ON 1ST CHECK

General (Brief Scope of Work). CA No “CENM – 18 of 2015-16” :“ Provn of Deficient single officer living accn & officers mess at INS Mandovi, for ` . 1673.57 Nos of obsns raised during 1st check on 07 Sep 2016. During 11-13 Dec 2018, previous check verified on ground and remarks appended against each obsns :-

No	Obsns	Present Status
1	2	3
1	<u>Obsn No 01 : Sample Qtrs.</u> One single officer Accn and one servant qtr found made with internal finishes sewage and plumbing lines not connected. Following were found provided:- (a) <u>Cub board.</u> 18.30 mm thick pre-laminated particle board of make M/s Bhuthan boards provided for shutters. Please confirm Type and grades are as per drawing, as CA does not mention same. (b) <u>Aluminium window.</u> Anodised aluminium sliding window of make M/s Jindal found provided. Glass make M/s Saint Gobain. Confirm thickness of glass as same could not be checked. Confirm that thickness is as per CA.	(a to d) Settled
2	<u>Obsn No 02 : Site Documents</u> (a) PMG register not produced. (b) Hindrance register not produced. Please fwd site documents.	
3	<u>Obsn No 03 : Skilled Tradesmen.</u> Number of ITI qualified tradesmen employed at site found not adequate as per CA clause No 1.31 at Ser Page No 143 of CA. The CA clause stipulates that the number of ITI/NICMAR/NAC qualified tradesmen shall not be less than 25% of total skilled/semi-skilled tradesmen required in each trade. Documentary proof for appointment of I.T.I qualified tradesmen and salary paid to them also not found available at site. Please forward reasons for such deviation from CA through AO along with minus DO on this account.	
4	<u>Obsn No 04 : Form Work and Shuttering.</u> (a) Old wooden plank, which are warped, bent, damaged are being used in the work. (b) Steel shuttering is found rusted, ends are bent, damaged, holes found on sheet at places. (c) Steel props supported on wooden planks found used at places. (d) Gaps found all over the erected form work. Cement slurry found leaked from these gaps during concreting	

1	2	3																					
..4/-	<p>. Honey combing found in slab and beams at places. In view of above you are requested to :</p> <p>(i) Replace old wooden plank and steel plates, which are warped, bent, damaged, rusted having holes with steel form work in good condition as per PS Clause No 8.16 (c) on page No 162 of CA intimating cost of replacement.</p> <p>(ii) Replace props with adjustable props and not to use wooden planks to support them. Intimate cost of replacement.</p> <p>(iii) Seal the gaps in shuttering plates before casting. Intimate cost of rectification.</p> <p>(iv) Carry out NDT to ascertain strength of slab and forward results.</p>																						
5	<p><u>Obsn No 05 : Sunken Slab.</u></p> <p>(a) RCC slab with 50 to 60mm (half thickness) provided partially and needs to be demolished.(Appx 04 Sqm). Rectify defect and intimate cost.</p> <p>(b) At places the RCC slab is partially casted and terminated at 01mtr away from the beam. This is not good engineering practice. Please carry out further casting by using proper bonding chemical. Accept penal recovery of Rs 10000/- for poor workmanship.</p>	Settled																					
	<p><u>Obsn No 06 : Reinforcement.</u></p> <p>(a) Vizag steel TMT found used in the work Grade & IS are not marked on bars. Confirm through documentary proof that bars are CRS of appropriate grade.</p> <p>(b) Re-bars found heavily rusted. Apply anti rusting chemical before casting concrete intimating cost.</p> <p>(c) Hooks are bend in 90^od and not 135^od. Hook length found 50 to 70 mm for 8 mm dia bar. This is against provisions of IS 13920. Rectify defect and intimate cost of rectification. Confirm that in casted RCC work such defect does not exist.</p> <p>(d) Cage of column bars are not made as per specification. Cage of bars found 320x180mm for a column dimension of 450x300mm Bars found twisted in few columns. Please rectify the defect intimating cost. Confirm through AO that with less cage size columns are safe.</p> <p>(e) Steel not found stored on proper dunnage. Provide proper dunnage intimating cost.</p> <p>(f) Accept penal recovery of Rs 10000/- for above lapses.</p>	(a) and (e) Settled																					
7	<p><u>Obsn No 07 : Site Engineers.</u> Following site engineer found at site.</p> <table border="1" data-bbox="240 1756 1023 2063"> <thead> <tr> <th><u>S. No</u></th> <th><u>Name of Site Engineers</u></th> <th><u>Experience</u></th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Mr Sunil Divakaran, BE</td> <td>07 years</td> </tr> <tr> <td>(b)</td> <td>Mr. Babu Kolker, BE</td> <td>01 year</td> </tr> <tr> <td>(c)</td> <td>Mr Shrihari Gurav, DCE</td> <td>06 years</td> </tr> <tr> <td>(d)</td> <td>Mr Rajesh Kelkar, DCE</td> <td>18 years</td> </tr> <tr> <td>(e)</td> <td>Mr Vikas Nanu, BE</td> <td>05 years</td> </tr> <tr> <td>(f)</td> <td>Mr Subash Jadhav, BE</td> <td>25 years</td> </tr> </tbody> </table> <p>Forward credentials and payment details in respect of site engineers.</p>	<u>S. No</u>	<u>Name of Site Engineers</u>	<u>Experience</u>	(a)	Mr Sunil Divakaran, BE	07 years	(b)	Mr. Babu Kolker, BE	01 year	(c)	Mr Shrihari Gurav, DCE	06 years	(d)	Mr Rajesh Kelkar, DCE	18 years	(e)	Mr Vikas Nanu, BE	05 years	(f)	Mr Subash Jadhav, BE	25 years	
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1	2	3
8	<p><u>Obsn No 08 : Site Lab.</u> Site lab found very ill-equipped and housed in a small temporary shed with tin sheet roof. All necessary testing equipments required for site lab for conducting specified tests('A' Type) not found installed by the contractor as per CA. clause No 5.3 on page No. 148. One Compressive testing machine (hand operated, not calibrated), slump testing instrument, sieves, weighing machine oven and jars found in temporary tin shed.. Please ensure that the site lab is fully equipped with serviceable and calibrated equipments as per CA provisions and confirm alongwith your comments through AO. Also ensure that power operated CTM is installed for testing of compressive strength of PCC cubes and blocks. Please accept penal recovery of Rs 25000/- for not establishing fully equipped lab.</p>	
9	<p><u>Obsn No 09 : Lift well.</u> RCC wall found skewed/twisted. One side of the RCC wall found covered in by 40 to 60mm in one lift well. Demolish/Reconstruct defective portion intimating cost. Fwd your reply through AO.</p>	
10	<p><u>Obsn No 10 : RCC Work.</u></p> <p>(a) The compressive strength of RCC columns, beams were randomly checked using Rebound Hammer and following reading observed :- Officers Mess bldg - 18.5, 26, 20 N/sqmm Servant Qtr - 26, 32,40 N/sqmm</p> <p>(b) RCC columns (02 Nos) found twisted at 3rd floor (left side single officer living).</p> <p>(c) Cover to reinforcement is not uniformly maintained, varying from 20 to 100mm at 02 Columns.</p> <p>(d) Wooden planks found at one place in roof slab and 25 to 30mm depression will be there in Ceiling when plank removed.</p> <p>(e) Concrete found honey combed at places in beam and slab.</p> <p>(f) Multiple hair line cracks found developed on recently casted slab (Appx 35 Sqm).</p> <p>(g) Columns found offset (01 Nos) by 25 to 30mm and out of alignment.</p> <p>(h) RCC columns size found 45x29cm in lieu of 45x30cm at 02 places. In view of above:-</p> <p>(i) Carry out confirmatory core test from SEMT wing/IIT/Govt Engg College/Govt approved labs as strength is less as per acceptance criterion for M30 concrete.</p> <p>(ii) Rectify the defect in RCC columns and intimate cost. Also confirm that no other column is twisted.</p> <p>(iii) Rectify cover to reinforcement and intimate cost.</p> <p>(iv) Remove the wooden plank and fill the depression with concrete by using chicken wire mesh intimating cost.</p> <p>(v) Rectify honey combing intimating cost.</p> <p>(vi) Grout the cracks and carry out NDT intimating cost.</p> <p>(vii) Rectify column intimating cost. Also confirm that no other column is off-settled</p> <p>(viii) Rectify undersize column and intimate cost.</p> <p>(ix) Accept penal recovery of Rs 10000/- for poor workmanship. Fwd your reply through AO.</p>	(iv) Settled

1	2	3
11	<p><u>Obsn No 11 : RCC Retaining Wall.</u> Following defects observed:-</p> <p>(a) Cover to reinforcement found varying 20 to 50mm. Rectify defect intimating cost.</p> <p>(b) Weep holes are found haphazardly provided at a height of 1.8 m from ground level. No uniformly/ pattern followed. Weep holes are inadequate. Provide weep holes as per drawing and intimate rectification cost. As filling has been done gravel could not be verified. Confirm that gravel have been provided as per drawing/CA.</p>	(a) Partially Settled
12	<p><u>Obsn No 12 : Crumple section</u> 50 to 60mm thick thermocol found used at crumple section at all places in lieu of approved Bituminous filler. Crumple is filled with cement mortar. Rectify the defect and intimate cost.</p>	Partially rectified.
13	<p><u>Obsn No 13 : Filling under floor.</u> Large size soft rock having size varying from 100mm to 500mm found used for filling under floor along with soil. Soil found not properly compacted under In Single Officer Qtr right side. Rectify the defect intimating cost.</p>	
14	<p><u>Obsn No 14 : Recovery of Steel cut pieces.</u> Amount of steel cut pieces out of steel advance paid to contractor not recovered from RAR. It is considered as over payment. Recover amount and intimate the same.</p>	
15	<p><u>Obsn No 15 : Cube Casting and Testing.</u> Number of cubes casted are much less than required. Only one set of cubes casted and tested for any amount of concrete laid daily. It is not understood how quality of concrete has been ascertained. Forward your reply through AO. Please recover the amount from contractor</p>	
16	<p><u>Obsn No 16 : Design mix of RMC and Batching Report.</u> Following are not produce during site check :-</p> <p>(a) Design mix of RMC</p> <p>(b) Batching report of RMC brought to site.</p> <p>It is not understood how quality of concrete has been ascertained. Forward your reply through AO. Accept penal recovery of Rs 10000/- for this lapse.</p>	
17	<p><u>Obsn No 17 : PCC Blocks.</u></p> <p>(a) Size of aggregate in block found less than 6mm (Approx qty 5000 blocks).</p> <p>(b) No drying shed found at site.</p> <p>(c) Moisture movement test & drying & shrinkage test not carried.</p> <p>(d) Size of water tank found 3.9 x 2.0m.</p> <p>(e) Blocks stacked in open ground.</p> <p>(f) Curing being done manually through pump.</p> <p>(g) No air circulation gap found between blocks.</p> <p>(h) Date of casting not marked on stack.</p> <p>In view of above,</p> <p>(i) Please replace PCC blocks having smaller size aggregates intimating cost.</p>	

1	2	3
..17	(ii) Provide drying shed intimating cost. (iii) Carry out all the tests as per IS 2185 intimating cost. (iv) Carry out casting, curing, drying and testing as per IS 2185 intimating cost. (v) Accept penal recovery of `10000/- for violating CA/IS provisions.	
18	Obsn No 18 : Electricity Bill recovery. Electricity is being supplied to contractor by MES. Electric meter found non-functional. No electricity charges deducted from RAR. Please rectify the meter and deduct electricity charges by accessing consumption. Intimate amount recovered	
19	Obsn No 19 : PV & TC. Please forward PV & TC of all materials used in work.	

PART 'B'

OBSNS ON ADM APPROVAL, PLG & TS

- NIL -

OBSERVATION ON CONTRACT & SITE DOCUMENT

- NIL -

OBSERVATION ON SITE INSPECTION (MAJOR)

1. Obsn No 20 : Slow Progress.

(a) The date of commencement of work was 03 Sep 2015 The original date of completion was 02 Mar 2016 for Phase-I and 02 Feb 2017 for Phase-II. The Phase-I was completed on 18 Jul 2016. The extended date of completion was 30 Nov 2018 but the overall progress at present is 88% as per executives but the actual progress at site seems to be on lower side considering the present status and it is likely to take minimum 06 more months for entire completion of work. 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) You are also requested to take requisite action and ensure that the job PDC is enhanced from CFA before granting any further extension of time to the contractor.

(c) 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 requested to forward details of review meetings held if any.

2. **Obsn No 21 : Udaipur Green Marble.** Udaipur green marble of size 2.20 m x 1.38 m having thickness 15.5mm – 17mm found at site. The polished green marble is going to be provided in the foyer of the building. However, the specification of foyer have been changed two times. Please forward justification for change in specification of foyer at such later stage and also the cost implications through AO.

3. **Obsn No 22 : Staircase.** Stairs found having Tread - 290 mm & Riser- 160 mm. Black granite 20 mm thick found provided on stairs upto first floor and Kota stone 25 mm thick found provided above first floor upto top of the building. It is observed that stainless steel railing provided through DO. Please get the stainless steel tested from Govt approved Lab and fwd the test certificate in respect of grade of steel provided in the work.

4. **Obsn No 23 : Fittings for Single Officers Accn.** Following items found being used in single officers accommodation:-

- (a) Wash Hand basin make 'CERA'.
- (b) EWC make 'CERA'.
- (c) Fancy type bib taps make 'Jaquar'.
- (d) Stop cock make 'Jaquar'.
- (e) Wall mixer make 'Jaquar'.
- (f) Pillar taps make 'Jaquar'.
- (g) Shower rose make 'Jaquar'.

Please fwd PV & TC of all items.

5. **Obsn No 24 :** Following samples found in the sample room being provided in the single officer's accn at 7th floor :-

- (a) GVT Floor tiles – Size – 1200X800X10.4mm, make 'Somany'.
- (b) GVT Wall tile bathroom – 600X300X7.5mm, make 'Somani'.
- (c) Non Skid floor tile – 300X300X8.3mm, make 'Somany'.
- (d) Wall hung WC white size 540X360X405, make 'Jaquar'.
- (e) Double arm mounted reversible plain/magnifying(X3) pivotal mirror, make 'Jaquar'.
- (f) Table top basin size 185X490X410, make 'Jaquar'.
- (g) Central hole basin mixer, make 'Jaquar'.
- (h) Bottle trap 32mm size with 250mm and 190mm long. make 'Jaquar'. (j) Angular stop cock with flange, make 'Jaquar'.
- (k) Two way bib cock with flange, make 'Jaquar'.
- (l) Wall mixture 3-in-1 with provision for both hand and overhead shower with 115mm long bend pipe. make 'Jaquar'.
- (m) Single towel rail 450mm long, make 'Jaquar'.
- (n) Easy flex tube in chrome finish 1.5m long with nuts, make 'Jaquar'.
- (o) Wall bracket for hand shower 35mm dia and 100mm long, make 'Jaquar'.
- (p) Hand shower. make 'Jaquar'.
- (q) Health faucet dia 8mm 1mtr long flexible tube and wall hook, make 'Jaquar'.
- (r) Shower basket small, make 'Jaquar'.
- (s) Soap dispenser with glass bottle, make 'Jaquar'.
- (t) Jaquar toilet roll holder with flap (AQN-7753).

- (u) Jaquar shower cabinet espira (0886).
- (v) Jaquar corner glass shelf with bracket (CAN-11783).
- (w) Jaquar towel rack with lower hanger (AHS-1581).
- (x) Jaquar concealed cisterns (JCS-WHT-2400S).

(i) Please fwd PV & TC of all above items. Also fwd reason through AO for such large changes in specifications and why same was not included in board proceedings. Also intimate cost implications.

(ii) Please confirm that approval of CFA has been obtained for above changes as special items of work.

6. **Obsn No 25 : Flush Doors.**

(a) Laminated flush door of thickness 37.2 mm, found provided, make of which could not be ascertained. Door beading have not been finished properly and work seems incomplete. It needs to be either be polished or painted. In view of above, please carry out the following:-

(i) Please fwd PV & TC of laminated flush doors.

(ii) Please get the flush door beading painted to match the door shutter and also get the bottom of the flush door painted with two coats of synthetic enamel paint as mentioned in last paragraph of Clause 10.11 in PS of CA. Fwd rectification cost along with photographs .

7. **Obsn No 26 : Panelled Door.** Factory made panelled door having :-

- (a) Top rail – 100 mm.
- (b) Middle rail – 100 mm, in lieu of 160 mm
- (c) Lock rail – 200 mm
- (d) Bottom rail – 150 mm in lieu of 200 mm

Beading has not been properly put and make of door could not be ascertained. Please replace the door with specifications as mentioned in SSR and intimate cost. Also fwd PV & TC.

8. **Obsn No 27 : Aluminum Windows.** 3 track aluminium windows found provided. Make could not be ascertained. Windows have aluminium grill of size – 5.4 mm x 8.8 mm and aperture 96 mm x 104 mm. Aluminum jali found provided having aperture of 1.65 mm and dia 46 mm in lieu of dia 0.51 mm and aperture 1.40 mm. Windows found provided with 6 mm glass of make 'Saint Gobin'. Windows not found moving smoothly. In view of above, please carry out the following:-

(a) Please replace aluminum jali with specification as mentioned in CA and fwd replacement cost.

(b) Please identify the windows which are not moving smoothly and replace the rollers and fwd replacement cost.

(c) Please fwd PV & TC of all items.

9. **Obsn No 28 : Flooring** Vitrified Tiles of Size 600 mm x 600 mm found provided make of which could not be ascertained. Joints found wider, undulations observed and gaps not properly filled. In view of above, please carry out the following:-
- Please rectify the defects and intimate rectification cost.
 - Please fwd PV & TC.
10. **Obsn No 29 : Water Tank.** Water tank of (500 ltrs) make 'Sintex' Non ISI found at site . Please replace the water tank with make and specification as mentioned in CA and intimate cost.
11. **Obsn No 30 : APP Membrane.** APP membrane of make 'STP', Super Thermo Lay found provided on roof. End overlap 120 mm in lieu of 150 mm, Side overlap 100mm found. Edges of membrane are not properly tucked into wall by cutting grooves. No ponding test found carried out before and after application of roof treatment. Independent testing of APP membrane not produced during site visit. Membrane not properly stucked at places. In view of above, carry out the following:-
- Please rectify defects by cutting grooves and tucking edge of APP membrane as mentioned in PS clause 13.8 and intimate rectification cost.
 - Please identify area where overlap is less and redo the laying. Intimate rectification cost.
 - Please fwd certificate of authorized applicator as per PS clause 13.6.
 - Please fwd PV & TC of APP membrane.
 - Please also fwd 10 Yrs guarantee certificate by contractor for water proofing.
12. **Obsn No 31 : PCC Tiles.** PCC tile of size 300 mm X 300 mm and thickness 21 mm found provided on accessible roof, make of which not found marked. Please fwd PV & TC of PCC tiles.
13. **Obsn No 32 : Rain Water Pipes.** The slope of roof of open terrace found towards the inside of building. The rain water pipes not yet installed. GE to confirm that the slope of roof is proper and sufficient number of rain water pipes have been provided for storm water drainage.
14. **Obsn No 33 : Lift Well & Duct.** Lifts well and lift duct of each wing have not been covered/ protected and is dangerous and risky for labourers and workers. Please ensure that all the safty precautions are taken and confirm along with photographs. Also accept penal recovery of ` 10,000/- for not adhering to safety norms in high rise buildings.
15. **Obsn No 34 : Servant Quarters.**
- The three servant quarter have been found converted into one suit with some specification changes. Please fwd justification through AO for such large changes and deviation from board proceedings and intimate cost implications of all deviation in servant quarters.
 - 600 x 600 mm vitrified tiles found provided in lieu of Kota stone in servant quarters. Make could not be ascertained. Gaps observed in tiles and found undulating in servant quarters. Pease identify defective area, rectify defects and intimate rectification cost. Also fwd PV& TC.

16. **Obsn No 35 : Almirah.** Almirah found made up of pre laminated wooden particle board of make Bhutan board Interior grade of size 2440 mm x 1220 mm x 18 mm, ISI marked. The finish of the lamination was not proper and nails found on surface. In view of above carry out the following:-

- (a) Replace all pre-laminated particle board with exterior grade as mentioned in Clause 18.6 of PS and intimate replacement cost.
- (b) Please carry out proper sticking of lamination without nails and intimate cost. Also accept penal recovery of ` 5,000/- for poor workmanship.
- (c) Please fwd PV & TC

17. **Obsn No 36 : Crumple Joint.** Crumple joint has been found filled by thermocol at some places and at other places filled with bituminous fiber board make of which have not been found marked on it. Please fill all crumple joints with bitumen fiber board of make and specification as mentioned in CA and intimate rectification cost. Also fwd PV of the same.

18. **Obsn No 37 : Hindrance Register.** Hindrance register not found maintained. The work is delayed by more than two years and no hindrance register maintained. It is not understood how extension is being granted without such an important document. Please fwd your comments through AO for not maintaining the register.

19. **Obsn No 38 : Site Order.** Site orders not complied by contractor for site orders issued. Please update the register and confirm that all site orders have been executed by the contractor.

20. **Obsn No 39 : Lift Elevator.** Lift elevator of make 'Kone' is being provided. Panels found lying at site. Lift yet to be installed.

In view of the above,

- (a) Fwd PV and TC for lift.
- (b) Fwd lift inspection and commissioning report.

21. **Obsn No 40 : Internal Wiring.** Internal wiring was checked at sample flat. Sunken box of depth 50 mm in lieu of 65 mm and thickness 1 mm in lieu of 1.6 mm found provided. Earthing of sunken box not found carried out. MS screws found used in lieu of cadmium plated screws and found rusting at places. Wire of make Finolex ISI marked FRLSH found provided. Hylem sheet of thickness 2.5 mm in lieu of 3 mm without make Non ISI found provided. Step regulator 100 W, make 'Anchor', non ISI marked found provided.

In view of the above,

- (a) Replace sunken box and provide earthing of sunken boxes. Fwd cost.
- (b) Replace MS screws with cadmium plated screws. Fwd cost.
- (c) Replace Hylem sheet & fwd cost.
- (d) Replace step regulators with ISI mark & fwd cost.

22. **Obsn No 41 : LT Panels.** Following points observed in panels:-

- (a) Make 'JJ' Electrofab India Pvt Ltd', T Rubber gasket found provided.
- (b) Item No-20.13. Bus Bar Cu 20 x 6.5 mm. Incoming MCCB 63 A make 'ABB'. Outgoing MCCB 40 A, make 'ABB' 04 Nos and MCCB 25 A, Make 'ABB' one No. found provided. MCCB's breaking capacity could not be checked.
- (c) Item No 21.04. Incoming MCCB 40 A make 'ABB' provided. DOL starter make 'L&T, two Nos provided. Copper bus bar of size 20 mm and thickness 7 mm provided. MCCB's breaking capacity could not be checked.
- (d) Item No 18.25. LT panel of sheet thickness 2 mm with Incoming MCCB 200 A, 36 KA make 'ABB', Outgoing MCCB 40 A, 08 Nos and MCCB 16 A, 03 Nos make 'ABB' found provided. Copper bus bar found of size 25 x 9mm. MCCB's breaking capacity could not be checked.
- (e) Item No 18.15. LT panel sheet thickness 2 mm with Incoming MCCB 63 A, make 'ABB'. Outgoing MCCB 25 A, 05 Nos and 16 A, 01 No, make 'ABB' found provided. Copper bus bar found of size 25 mm and thickness 6 mm. MCCB's breaking capacity could not be checked.
- (f) Item No 20.05. APFC panel found lying in pump house. Incoming MCCB 250 A, 36 KA make 'ABB'. Outgoing MCCB – 40 A, 18 KA 03 Nos, 63 A 18 KA, 02 Nos, 25 A, 04 Nos make 'L&T' found provided. Capacitors of capacity 5 KV AR, 03 Nos, 10 KV AR, 03 Nos, 25 KV AR, 02 Nos make 'L&T' found provided. Copper bus bar of size 25 mm and thickness 6 mm found provided.
- (g) Item No 20.11. Utility panel found lying at pump house. Incoming MCCB 63A, make, 'ABB' provided. Outgoing MCCB 63 A – 01 No, 25 A – 02 Nos found provided. Copper bus bar of size 25 mm and thickness 6 mm found provided. MCCB's breaking capacity could not be checked.
- (h) Item No 20.07. LT panel found laying at site. Incoming MCCB 250 A 36 KA make 'ABB' found provided. Outgoing MCCB 200A, 36 KA – 01 No, 63 A – 01 No, 25 A – 02 Nos, make 'ABB' found provided. Copper bus bar of size 25 mm and thickness 10 mm found provided. MCCB's breaking capacity could not be checked.
- (j) Item No 20.06. Incoming MCCB 400 A, 36 KA make 'ABB' provided. Outgoing MCCB 250 A 36 KA – 02 Nos, 100 A – 01 No, 40 A – 02 Nos provided. Copper bus bar of size 25 mm and thickness 12 mm provided. MCCB's breaking capacity could not be checked.
- (k) Item No 19.04. Star Delta start 10 HP – 02 Nos provided. Copper bus bar of size 20 mm and thickness 6mm provided.

In view of above,

- (i) Replace rubber gasket with neoprene gasket and forward cost.
- (ii) Fwd documentary proof for breaking capacity of MCCB's.
- (iii) Fwd confirmation for commissioning of all panels.

(iv) Fwd PV and CPRI type test report for all panels.

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23. **Obsn No 42 : Transformer.** Transformer of make Pactil, 200A, 11/0.433KVA found placed on plinth of size 150 cm x 150 cm. Transformer yet to be commissioned. Fwd PV, TC and SEI transformer commissioning report.

24. **Obsn No 43 : HT cable.** HT cable of 95sqmm found laid with cable cover of size 300 x 180 x 40 mm, make 'Mehtab', ISI marked found laid in depth of trench 60cm in lieu of 90cm. Sand above cable 2cm in lieu of 10cm and below 1cm in lieu of 8cm found provided. Rectify defects and forward cost.

25. **Obsn No 44 : Fire Fighting.** Fire fighting work yet to be started. Please confirm through CE that all CFEES points have been incorporated in CA. Also fwd copy of CFEES report.

26. **Obsn No 45 : Material at Site.** LT cable 10 sqmm and 4 core make 'Havells' and 16sqmm and 4 core of make 'Havells', GI pipe 50mm of make Jindal ISI, LT cable cover 250 x 150 x 40 mm of make 'Mehtab' ISI found lying at site. Fwd PV and TC.

(Satish Chander, IDSE)
STE SC Pune

MINOR OBSERVATION

CA No : CENM – 18 of 2015-16
Name of Work : Provn of Deficient single officer living accn & officers mess at INS Mandovi.
Amount in lakhs : ₹. 1673.57 Lakhs

- NIL -

(Satish Chander, IDSE)
STE SC Pune

IMPORTANT OBSERVATION

CA No : CENM – 18 of 2015-16

Name of Work : Provn of Deficient single officer living accn & officers mess at INS Mandovi.

Amount in lakhs : ₹. 1673.57 Lakhs

1. **Obsn No 20 : Slow Progress.**

(a) The date of commencement of work was 03 Sep 2015 The original date of completion was 02 Mar 2016 for Phase-I and 02 Feb 2017 for Phase-II. The Phase-I was completed on 18 Jul 2016. The extended date of completion was 30 Nov 2018 but the overall progress at present is 88% as per executives but the actual progress at site seems to be on lower side considering the present status and it is likely to take minimum 06 more months for entire completion of work. 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) You are also requested to take requisite action and ensure that the job PDC is enhanced from CFA before granting any further extension of time to the contractor.

(c) 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 requested to forward details of review meetings held if any.

2. **Obsn No 21 : Udaipur Green Marble.** Udaipur green marble of size 2.20 m x 1.38 m having, thickness 15.5mm – 17mm found at site. The polished green marble is going to be provided in the foyer of the building. However, the specification of foyer have been changed two times. Please forward justification for change in specification of foyer at such later stage and also the cost implications through AO.

3. **Obsn No 24 :** Following samples found in the sample room being provided in the single officer's accn at 7th floor :-

- (a) GVT Floor tiles – Size – 1200X800X10.4mm, make 'Somany'.
- (b) GVT Wall tile bathroom – 600X300X7.5mm, make 'Somani'.
- (c) Non Skid floor tile – 300X300X8.3mm, make 'Somany'.
- (d) Wall hung WC white size 540X360X405, make 'Jaquar'.
- (e) Double arm mounted reversible plain/magnifying(X3) pivotal mirror, make 'Jaquar'.

- (f) Table top basin size 185X490X410, make 'Jaquar'.
- (g) Central hole basin mixer, make 'Jaquar'.
- (h) Bottle trap 32mm size with 250mm and 190mm long. make 'Jaquar'. (j) Angular stop cock with flange, make 'Jaquar'.
- (k) Two way bib cock with flange, make 'Jaquar'.
- (l) Wall mixture 3-in-1 with provision for both hand and overhead shower with 115mm long bend pipe. make 'Jaquar'.
- (m) Single towel rail 450mm long, make 'Jaquar'.
- (n) Easy flex tube in chrome finish 1.5m long with nuts, make 'Jaquar'.
- (o) Wall bracket for hand shower 35mm dia and 100mm long, make 'Jaquar'.
- (p) Hand shower. make 'Jaquar'.
- (q) Health faucet dia 8mm 1mtr long flexible tube and wall hook, make 'Jaquar'.
- (r) Shower basket small, make 'Jaquar'.
- (s) Soap dispenser with glass bottle, make 'Jaquar'.
- (t) Jaquar toilet roll holder with flap (AQN-7753).
- (u) Jaquar shower cabinet espira (0886).
- (v) Jaquar corner glass shelf with bracket (CAN-11783).
- (w) Jaquar towel rack with lower hanger (AHS-1581).
- (x) Jaquar concealed cisterns (JCS-WHT-2400S).

(i) Please fwd PV & TC of all above items. Also fwd reason through AO for such large changes in specifications and why same was not included in board proceedings. Also intimate cost implications.

(ii) Please confirm that approval of CFA has been obtained for above changes as special items of work.

4. **Obsn No 25 : Flush Doors.**

(a) Laminated flush door of thickness 37.2 mm, found provided, make of which could not be ascertained. Door beading have not been finished properly and work seems incomplete. It needs to be either be polished or painted. In view of above, please carry out the following:-

(i) Please fwd PV & TC of laminated flush doors.

(ii) Please get the flush door beading painted to match the door shutter and also get the bottom of the flush door painted with two coat of synthetic enamel paint as mentioned in last paragraph of Clause 10.11 in PS of CA. Fwd rectification cost along with photographs .

5. **Obsn No 30 : APP Membrane.** APP membrane of make 'STP', Super Thermo Lay found provided on roof. End overlap 120 mm in lieu of 150 mm, Side overlap 100mm found. Edges of membrane are not properly tucked into wall by cutting grooves. No ponding test found carried out before and after application of roof treatment. Independent testing of APP membrane not produced during site visit. Membrane not properly stucked at places. In view of above, carry out the following:-

(a) Please rectify defects by cutting grooves and tucking edge of APP membrane as mentioned in PS clause 13.8 and intimate rectification cost.

(b) Please identify area where overlap is less and redo the laying. Intimate rectification cost.

- (c) Please fwd certificate of authorized applicator as per PS clause 13.6.
- (d) Please fwd PV & TC of APP membrane.
- (e) Please also fwd 10 Yrs guarantee certificate by contractor for water proofing.

6. **Obsn No 32 : Rain Water Pipes.** The slope of roof of open terrace found towards the inside of building. The rain water pipes not yet installed. GE to confirm that the slope of roof is proper and sufficient number of rain water pipes have been provided for storm water drainage.

7. **Obsn No 33 : Lift Well & Duct.** Lifts well and lift duct of each wing have not been covered/ protected and is dangerous and risky for labourers and workers. Please ensure that all the safty precautions are taken and confirm along with photographs. Also accept penal recovery of ` 10,000/- for not adhering to safety norms in high rise building.

8. **Obsn No 34 : Servant Quarters.**

(a) The three servant quarter have been found converted into one suit with some specification changes. Please fwd justification through AO for such large changes and deviation from board proceedings and intimate cost implications of all deviation in servant quarters.

(b) 600 x 600 mm vitrified tiles found provided in lieu of Kota stone in servant quarters. Make could not be ascertained. Gaps observed in tiles and found undulating in servant quarters. Pease identify defective area, rectify defects and intimate rectification cost. Also fwd PV& TC.

9. **Obsn No 44 : Fire Fighting.** Fire fighting work yet to be started. Please confirm through CE that all FEES points have been incorporated in CA. Also fwd copy of CFEES report.

(Satish Chander, IDSE)
STE SC Pune