MEP Cell (Design, Technical Procurement and Construction)

(to be considered part of Design wrt the Central MEP Team and balance associates to be considered as Project MEP Team)

Scope:

To design, procure (excluding financial negotiation) and execute all MEP (+ OEMS) works at all sites (Vertical and horizontal), as a virtual MEP sub-contractor to the CM-General team which shall be acting as the General Contractor (GC).

The specific responsibilities are enumerated below and are in line with the expected role of a MEP sub-contractor in the Middle East.

The onsite execution works shall be based on one of the following two models:

- **Model 1 (own):**
    - Taking end to end responsibility for MEP related activities (including design, technical procurement and execution).
    - Under Model 1, the CM-General team shall provide dedicated support (logistics, coordination etc.) to the MEP team to supervise and co-ordinate the works.
    - MEP team shall be responsible for the quality, cost and timely co-ordination of MEP activities with civil and MEP works ; and the MEP team + siteôs Const Manager/Incharge from CM-General shall be jointly responsible for the timely completion of MEP activities.
    - HOC MEP (or empowered direct report) will ensure that the MEP team works as a MEP contractor under the CM-General team which acts as the General contractor. It is essential to coordinate well with and align under the head of the site from the CM-General team.
    - In this model, primary and secondary reporting of the onsite MEP team shall be to the HOC-MEP (or empowered direct report). Performance rating of the onsite MEP team will be done jointly by the HOC-MEP (or empowered direct report) and PD/PMH concerned.
- **Model 2 (enable):**
    - The Central MEP Team will take responsibility for the design (upto architectural DD, including overlap with the Project MEP Team during DD) and provide independent team of MEP associates who will work directly under instructions of the CM leadership on a given site wrt execution (DD overlap and post DD execution) and the CM-General leadership shall be responsible for the quality/timeliness/cost of the MEP works.
    - HOC MEP (or empowered direct report to him) shall be responsible for:
        a. Providing MEP team as per norms herein below (and being involved in any new recruitment, including for replacement).
        b. Providing them with setup help (first 30-60 days).

c. Providing them with guidelines and training wrt quality, cost control, wastage norms etc.

d. Resolving any technical or quality issues when asked by CM leadership on site or the CM MEP team on that site.

e. Visiting site and resolving issues related to c. and d. once every 15 days.

- In this model, the primary reporting of the onsite MEP team shall be to the PD/PMH (administrative and day-to-day) and secondary reporting (technical/functional) shall be to HOC-MEP (or empowered direct report). Performance rating of the onsite MEP team will be done jointly by the PD/PMH concerned and HOC-MEP (or empowered direct report). **(Refer Annexure – 1)**

Note:

- In either model, the HT (from source to transformer) design will be shared with and reviewed by the Electrical liaison team prior to issuance of tender and their inputs will be duly considered.
- During execution phase, the Electrical liaison team will coordinate with the MEP team associates on site to ensure appropriate execution and proper coordination with concerned agencies.
- The Project Team Lead and Project (Design) Team Lead will be involved in the overall design process from the beginning, and shall be expected to completely own the design and the progress in design.
- During the DD stage the design will be led by the Central Design Office, however they will be reinforced by the Project (Design) Team Lead (and members) designated for the project, who shall remain involved into the subsequent stages as leads.

Model selection and mobilization:

- Model shall be determined for each project based on the decision between COO, PD/PMH and HOC-MEP and Regional CEO, atleast 2 months prior to start of MEP works (excluding slab conduiting) onsite.
- Further, MEP team (execution linked) shall be mobilized to a project site as per the dates scheduled by PD/PMHs office intimation of which shall be given to HOC-MEP at least 8 weeks prior to the date of mobilization.
- Final withdrawal of the last associate from MEP team shall be only after the areas completed by MEP team are handed over to FM and reconciliation of material if any, supplied by the company is approved by the commercial manager of the project.

- Ongoing projects are classified as per aforesaid models, as follows (subject to a review on 31/10/2016):

Projects	Working Model
FIORENZA	1
ETERNIS	1
BELMONDO	2
SPLENDORA	1
LUXURIA	1
LODHA PLACE	2
MTM	2
ALTAMOUNT	2
VENEZIA	2
KEM	2
WALKESHWAR	2
NCP	2
HYDERABAD	2
CLARIANT	2
PALAVA 1A	2
PALAVA 1B	2
PALAVA 2	2

Team Structure:

Central MEP team + CM team

- Level 1 for each of the following zones:
  - South + Central Mumbai (ex-MTM & Lodha Place)
  - MTM
  - Lodha Place
  - NCP
  - Western Suburbs + Pune
  - Eastern Suburbs (including Thane)
  - Palava 2
  - Palava 1

- 1 L2 shall handle:
  - In case of vertical development (majority of towers are 100 m+):
    - 2 towers of upto 60 floors; or
    - 3 towers of upto 45 floors; or
    - Related Infra and Parking (including GCP)
  - In case of horizontal development (majority of towers are <100 m)
    - Upto 20 towers/wings
  - In such horizontal developments, Infra and Parking shall require separate L2.

- Each L2 shall have a team of:
  - 5-6 L3 and L4s
  - 2-3 L5s

  Very flat team structure with L2 being the sole manager.

Responsibility Matrix:

a. Central Team: Technical Design + Cost
b. L1 (CM): Cost + Time
c. L2 (CM): Time + Quality

Productivity Targets:

Target productivity (MEP Associate CTC / CM-MEP + OEMS Spend (excluding ornamental fittings) will be:
- 3% for key FML contracts
- 3.75% for FLO contracts

This shall be tracked and reported on quarterly basis on companywide basis. (This is as per overall CM productivity norms and shall stand updated as per any update to overall CM productivity norms).

The Resource Planning documents need to be modified to define the design resources for the individual projects.

Annexure – 1

Protocol for the MEP teams working on projects (Model 2), and their reporting to the PD/ PMH and the HOC

Controls assigned to PD's

1) The MEP Team lead will administratively report to the PD/Project Head. The other MEP team members will report to the MEP Team lead.

2) MEP team will report to the PDs for the Attendance, Leaves, day to day work.

3) Complete control on progress of MEP works in coordination with other trades for the smooth and on time delivery.

4) Proper facilitation for the associates which includes proper support of all administrative facilities , Proper seating/desk areas, support of other administrative functions like Document control, Planning etc.

5) Complete control to ensure proper working environment at site with minimum conflicts.

6) Instructions to MEP associates for designing and implementation of required water and power network for the labor camps, Tower labor amenities at work areas if not included in civil contractor scope (but maintenance shall be done by others. PDs to hire contractor for the Electrical & Plumbing temporary works). All the cost related matters and vendor finalisation shall be done by commercial team for all the associated works; He will be assisted by the MEP QS on the Project.

7) Daily, weekly and monthly reporting.

8) Management of material requisition /order.

9) Administrative intervention with other departments at HO.

10) PD/PMHs should allow Project team members to go for following :
    a. Site Visit for vendors empanelment
    b. In house training program as trainer or trainee
    c. Monthly meet of the MEP Team leaders
    d. Allowing project team members to be part of design process

Controls assigned to HOC - MEP

1) MEP Policy Formulation including instructions to MEP team for implementation of same at site.

2) Major technical issues related to MEP which is affecting Site work progress.

3) Intervention in case of conflicts with other HO based functional departments.

4) Intervention in case of major issues with the vendors which are affecting work progress seriously.

5) Assessment of site Manpower (Associates) requirement and allocation of same to the Site MEP.

6) Annual Performance review of the Level 1 & Level 2 Associates will be jointly done HOD & PD / PMH.

7) Approvals for Introduction of new products/methods which will improve work quality and Progress of works.

8) Temporary or permanent allocation/transfer of associates to other sites or areas with prior intimation to Site PD.

9) Direct instruction to MEP associates for other site visits in case of emergency, MEP Team leads for monthly meet and the vendor site visits for empanelment process with intimation to the PD.

10) Site team will provide the data to the MEP Project Control associate in HO as and when required. A review of the project with the project team will be done once a month.

Note: Where the working model is of Model 1 (Own) there the team leader will report to the MEP-HOC (Or his designated associate).

Current MEP Team Structure – as on May 2016

MEP TEAM STRUCTURE						
Teams	Team Lead	Projects	Project MEP Team Lead	Project Design Lead	Reporting	
					Administrative	Functional
Team 1	Abdul Rauf Mukadam	Palava 2	Sanjay Jadhav	Anjaneyulu Bandari	Col Ajay Singh	Manish Thakur
		Palava 1	Madhusoodanan Tn		Sanjay Kumar	Abdul Rauf Mukadam
		Belmondo	Namdeo Nanaware		Ranjit Kukday	
		NCP	Manish Kothawala	Sarwar Khan	Sanjay Kumar	
		Splendora	Balaji Sankaran	Gopikrishnan Menon	Abdul Rauf Mukadam	
		Luxuria				
		Eternis	Rajesh Verma			
		Clariant	Satish CK		Premnath	
Team 2	Sanjay Bhattacharya	Fiorenza	Rajesh Verma		Sanjay Bhattacharya	Sanjay Bhattacharya
		Lodha Place	Hitesh Bhatia	Mohd Haroon Siddiqui	Mahesh Bhudia	
		Venezia	Mohd Siddiqui Haroon			
		Altamont				
		KEM				
		Tardeo				
		Walkeshhwar				
		Meridian	Raghunadha Babu		Sanjay Kumar /S Kattimani	
		Park	Ajay Gupta	Manjunatha Revankar	Spyros Marcantonatos	