

Template Programme TP10 - MV Electrical Switch Room

Activity ID	Activity Description	Predecessors / Comments
TP10-01	MV1 Switch room available for commencement	Identification of the commencement date. In the case of switch rooms this activity can refer to the construction of the room only. This is because activities TP10-02 & 03 need to be specifically detailed and not part of the general availability for commencement.
TP10-02	MV1 Switch room plinth	Could be deferred until after the installation of the high level services.
TP10-03	MV1 Switch room floor sealing	Essential operation prior to the switchgear delivery in order to prevent dust ingress. May need re-coating following the completion of the switch room installation.
TP10-04	MV1 Basement supply ductwork	It is good practice to install the works of un-related trades prior to the delivery of switchgear. Particularly where the work is above the switchgear location, this will limit dust and also potential damage to the switchgear.
TP10-05	MV1 Basement extract ductwork	As item TP10-04
TP10-06	MV1 Switch room bracketry & ladder rack	Containment for the MV cables, preferably installed prior to the switchgear delivery.
TP10-07	MV1 Switch room metal doors	Long lead-in item. Temporary wooden doors may be required because the room should always be lockable. Permanent metal doors have to be fitted prior to the energisation of the 11KV MV supply.
TP10-08	MV1 Bracketry & ladder rack to B1 switch rooms	This activity refers to the MV bracketry and ladder rack that is installed externally to the landlord and tenant's switch rooms on basement level B1. And as such its installation should be recorded throughout the "areas" it traverses to those switch rooms.
TP10-09	Deliver & assemble MV1 switch room MV switchgear	Long lead-in item. Delivered and assembled by its manufacturer - preferably into a clean and dry environment with all preceding trades work complete. Contains a series of individual switches for the distribution and control of outgoing MV supplies.
TP10-10	MV1 Bracketry & ladder rack to landlord's risers	As item TP10-08 - but refers to MV ladder rack that is installed to the electrical risers across the B1 floor level.
TP10-11	MV1 BMS interface connections	Has to follow the MV switchgear assembly. Could be installed later on, but must be prior to energisation.
TP10-12	MV Ladder rack complete to LLV2 switch room.	Because the LLV2 switch room is located on basement level B3 this milestone will provide an indication of when the MV ladder rack containment route to it is complete.
TP10-13	Install MV1 MV cables to level B1 S/rooms (x3)	The MV cable installation to the three switch rooms (1 x landlord 2 x tenant's) located on basement level B1. This includes the 'cleating' of the cables onto the ladder rack, but it does not include the termination of the cable ends, which is a specialist operation.
TP10-14	Install MV1 MV cable to SB1 sub-station	The incoming MV cable feed from the Electricity Supply Company's sub station (SB1).
TP10-15	Install MV1 MV cable to LLV2 (level B3 S/room)	As item TP10-13 but indicated separately because it is remote from the other cable runs and could therefore be installed at a different date. For instance its overall ladder rack route may still be incomplete by the time the basement level B1 ladder rack routes are complete.
TP10-16	Term & test MV1 MV cables to B1 S/rooms TX's	Termination and testing of outgoing MV cables (within the MV switch room) to the MV switchgear, carried out by a specialist joiner.

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TP10-17	Terminate & test MV1 MV cable to SB1 sub-station	Termination and testing of incoming MV cable (within the MV switch room) to the MV switchgear, carried out by a specialist joiner.
TP10-18	Terminate & test MV1 MV cable to LLV2 TX	Termination and testing of outgoing MV cable (within the MV switch room) to the MV switchgear, carried out by a specialist joiner.
TP10-19	MV1 Earth bar & cabling	Essential for the protection and safe operation of the switchgear and personnel - must be complete and tested prior to energisation.
TP10-20	MV1 MV emergency tripping control panel & wiring	The emergency trip buttons will be located adjacent to the switch room doors. It would be manually operated in the event of an incident i.e. fire being detected within the switch room. Operation of the trip causes disconnection of the MV supply to the MV switch room.
TP10-21	MV1 Warning notices & rubber matting	Safety requirements and warning notices for medium voltage and electric shock need to be displayed along with a MV schematic drawing.
TP10-22	MV1 MV supply available from SB1 sub-station	TP10 items 7,17,19,20, and 21 have to be complete before the MV supply can be switched on to the MV1 switch room switchgear from the SB1 sub-station.
TP10-23	MV1 Switch room power-on / live testing	Live operational testing of the MV switchgear following the energisation of its incoming supply from the Electrical Supply Companies sub-station (SB1).
TP10-24	MV1 Switch room MV supply available	Follows the successful live operational testing and means that the 11KV MV supply is now available to be distributed around the building to the LV switch room transformers (TX's) - following their own installation completion and successful testing.
TP10-25	MV1 Ladder rack Comp to northwest riser L16	This milestone indicates the completion of the northwest riser containment up to level 16. Its predecessor is activity WR13-16 09 on template programme TP14.
TP10-26	MV1 Ladder rack Comp to LLV3 (L17 switch room)	This milestone indicates the completion of the MV ladder rack from the MV1 switch room located on level B1 to the LLV3 switch room located on level 17.
TP10-27	Install MV1 MV cable to LLV3 (L17 switch room)	As item TP10-15
TP10-28	Terminate & test MV1 MV cable to LLV3 TX	As item TP10-18

General Notes:

- 1 To be read in conjunction with the Basement Levels B2 and B3 Plant Room Layouts
- 2 To be read in conjunction with Figure 1.4
- 3 Electrical switch rooms can also include cooling as part of their environmental control
- 4 There is more than one MV switch room and these activities would need to be replicated for MV2
- 5 All landlord's and tenant's LV switch rooms are fed from both MV1 and MV2
- 6 TX is an abbreviation of transformer
- 7 MV is an abbreviation of medium voltage
- 8 LV is an abbreviation of low voltage