Bulding 245 schedule update

LIU Booster Meeting 30-01-2014
Fulvio Boattini
TE-EPC
Building 245 position

30/01/2014

TE-EPC - Fulvio Boattini
## MPSB Time Schedule

<table>
<thead>
<tr>
<th>Physics</th>
<th>LS1</th>
<th>Physics</th>
<th>LS2</th>
<th>Physics</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ressources</td>
<td>Services Integration (EL, CV,..)</td>
<td>GS/SE studies and procurement</td>
<td>Building construction</td>
<td>May 2016 Building Ready</td>
</tr>
<tr>
<td>October 2013</td>
<td>March 2014</td>
<td>March 2015</td>
<td>April 2017 Start Commissioning on dummy load</td>
<td></td>
</tr>
<tr>
<td>Switching cabinets and cabling installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30/01/2014

TE-EPC - Fulvio Boattini
**Building 245: electrical power needs**

<table>
<thead>
<tr>
<th>TYPE OF NETWORK</th>
<th>USER</th>
<th>POWER [kW]</th>
<th>COMMENT</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine</td>
<td>EN/CV</td>
<td>396</td>
<td>Water cooling and towers b.237 and 245</td>
<td>Annex 01</td>
</tr>
<tr>
<td>Machine</td>
<td>TE/EPC</td>
<td>392</td>
<td>Auxiliaries</td>
<td>F.Boattini 22/11/2013</td>
</tr>
<tr>
<td>Machine</td>
<td>TE/EPC</td>
<td>6750</td>
<td>N.3 transformer 2.7 MVA (2@100%, 1@50%)</td>
<td>F.Boattini 22/11/2013</td>
</tr>
<tr>
<td>General services</td>
<td>EN/EL</td>
<td>100</td>
<td>Lights, sockets, OH crane - b.245</td>
<td>F.Boattini 22/11/2013</td>
</tr>
<tr>
<td>General services</td>
<td>EN/CV</td>
<td>104</td>
<td>HVAC b.245</td>
<td>F.Boattini 22/11/2013</td>
</tr>
<tr>
<td>UPS</td>
<td>TE/EPC</td>
<td>15</td>
<td>Auxiliaries which need UPS</td>
<td>F.Boattini 22/11/2013</td>
</tr>
<tr>
<td>Safety network</td>
<td>EN/CV</td>
<td>10</td>
<td>Smoke extraction</td>
<td>F.Boattini 22/11/2013</td>
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<tr>
<td>Safety network</td>
<td>EN/EL</td>
<td>25</td>
<td>Emergency light, fire detection</td>
<td>F.Boattini 22/11/2013</td>
</tr>
</tbody>
</table>

Power needs have been collected and EN/EL worked out a power network layout

EN/EL needs detailed power departures from TE/EPC and EN/CV
Building 245: electrical power needs

EN/EL prepared the first schematic of the LV network is now available.

Transformers:
18k/0.4kV 2MVA; 800kVA

Switching cabinets

An UPS
Building 245: cooling pipes

EN/CV proposed a path for the pipeworks

- 2 DN200 + 2DN100 pipes for PSB magnets cooling (from b245 to b361)
- 2 DN100 pipes for chilled water (from b361 to b245)
- 2 DN100 pipes for TT2 cooling (from b245 to b289)
Building 245: power cables

TE/EPC presented power cables paths

No spare magnets are needed anymore inside b245 as POPS spare magnets will be used for commissioning

18kV cables still to be added

EN/EL-TE/EPC shall verify the routing in a cad model

30/01/2014
Building 245 layout
Building 245 layout
Building 245 layout (b271 side)
Building 245 layout (Isolde side)
Building 245 layout
Building 245 layout
Building 245 layout
INTEGRATION PROJECT OPEN POINTS:

- EN/CV needs to work more on layout design of the cooling part
- EN/EL TE/EPC need to find a solution for the EN/EL cabinets layout. EN/EL is starting to test two solutions on the 3D model but more detailed input from EN/CV is needed.
- Cost estimation needs to be provided by all services of the building

INTEGRATION PROJECT CRITICAL POINTS:

- EN/CV announced Glen will have no time for completing the design the cooling components. Michel will replace him during his absence, but in the whole process we take more than one month of delay.
Bulding 245 schedule update

THANKS FOR THE ATTENTION

QUESTIONS?
Building 245 layout

EN/EL proposal for Electrical Room