



East Hall under construction - 1962

EA Renovation project – Technical Review EN-EA Feedback from the first review

S. EVRARD / EN-EA, 05-07-2019



ENGINEERING
DEPARTMENT



SERVICES

Shielding:

- Primary area: Bard and Sebastien to provide the tech. spec. within 1 month.
- Mixed area: Erwan to provide the tech. spec. within 1 month.
- Primary dump: offer received from PK, more expensive than framework contract, 6 months for delivery. 2 W blocks to be added.
- Shielding 352/157: re-use of existing shielding + some small bricks. Further look by integration team.
- Issue: logistics for concrete block storage in order to avoid unnecessary handling operations (Aboubakr, Erwan)
- Sealing solution for primary area roof to be investigated. Still not clear how to do this. A sample of material has been tested during this year -> to analyze. Also to prospect with Aymeric's contractors if they could propose solutions. Erwan is in charge.

SERVICES

B251 false-floor:

DR launched (180 kCHF) via DO and external company (not via framework contract). EA will dismantle the existing false-floor structure (and cables trays for re-use) and SMB will reinstall the new one in September. Reinstallation on the critical path. Particular attention to pay on it. Also still pending a clarification/discussion of EL installation (estimated to 250kchf)-> impact of the design of the metallic structure.

SERVICES

- **Gas service:**

- Prefabrication can start: panels,...
- Issue: ATEX plan must be compliant to current design

- **Cabling service:**

- Patch panels: 20 kCHF per pair. See NA standard, and make an NA REX (retour sur experience) with users (Nikos). Start patch panel manufacture asap before cabling period end of 2020.

- **Dismantling services:**

- Primary area will be cleaned by Nuvia, offer update according to quantities, not to hourly rates (Aboubakr in charge via Aymeric)

Vacuum

- Use of all the remaining stock of beam pipe, which will cover mainly the primary beam lines. New orders needed for 15x6 m long DN159 and 14 pumps (Serbia in-kind to be investigated) and associated electrical cabinets (12 units, Philippe involved). Hippodrome chambers: Victor in charge to make them built at the CERN central workshop. Giulia, Damien and Emile to provide Victor with drawings of the 13 hippodrome chambers. Controls by TE-VSC: all is OK, pump power supply cables to be checked (in DICs) + design (local connection cabinets or not) Michael to decide through integration meetings).

Magnet supports

- 3D models almost completed. 2D drawings could be prepared by our design office or MME as an alternative. Complete file to be prepared by Damien and Giulia for Victor to organize the manufacture in the EA workshop. Approval of the design by MSC: Control 1 via D. Gerard to get MSC approval prior to manufacture. The beam yellow support on F61 could be send to b.109 for cut. Inventory of universal support to be organized to see if we need to produce others or not.

Other Beam line equipment

- **XCET**

- 4 bodies and support to be recuperated. Aymeric in charge of the overall technical specification. Beam window (withstanding 15 bars) to be optimized (carbon type to be considered): Serge and Miguel to help with the design of this window. Urgent issue on the critical path as the first XCET will be installed in just one year time (May 2020).

- **Collimator**

- 4 blocks spare available but needing refurbishment. No real experience with this type of collimator: Action: start dismantling one asap (Victor with FSU and benefitting from experience acquired by Emile) 2 blocks: one XCSH to be manufactured from scratch via the central workshop.
- Start doing asap the 2D drawings for the TCX (action EA design office).

- **XCON and XSCI**

- New scintillator XSCI requested by BI or T10 depending on the space available (should be confirmed by Integration team, Damien). XSCI can be prepared as from now. Aboubakr for design and tech. spec. for XCON and Victor and workshop for refurbishment.

- **Wire and Ionization Chambers**

- No change foreseen. Gas supply for XWCM, to be checked with David if included in his WP. (Michael) New XION requested for Irrad/CHARM: possible but to be funded by R2E. (discuss with Ruben and Salvatore). XBPF: order launched for 3 new tanks (4 XBPF in total but one existing tank), universal support to be prepared.

- **Open questions:**

- BLM: 15 units requested (8 for replacing 2 telescopes around the targets and 7 for primary beam lines: meeting to be organized with BI, OP and EA (action Michael))

List of actions (1)

Who	What	Deadline	Comment
Sebastien	Organize CSR ₃	End 19	Should integrate MTP decisions
Bard	Tech Spec for concrete beams for primary area	May 19	
Erwan	Tech Spec for concrete/steel beams for mixed area	May 19	
Michael	Tech Spec for primary dump	May 19	Done, EDMS1884719
Michael	Organize meeting for BLM	May 19	
Johannes	Second XION in IRRAD	June 19	Discussion with Salvatore and Ruben
Michael	Check with David for gas supply XWCM	May 19	
Damien	Confirm possible second XION on To8	May 19	
Aboubakr	Technical spec XCON	June 19	
Emile	Start dismantling 4 block collimator	June 19	
Emile	Prepare production of 2 block collimator outside	June 19	
Design office	2D drawings of TCX	June 19	

List of actions (2)

Who	What	Deadline	Comment
Aymeric	Choice of window of XCET	June 19	Tell Serge and Miguel to propose a design
Aymeric	Fabrication of chambers XCET	October 19	
Giulia/Damien	Complete file with list of magnet support and parts to be produced	June 19	Send to Victor to have a quotation
Aboubakr	Technical spec control rooms	Jan 2020	
Giulia/Damien/Emile	Finalize complete list of vacuum components for Victor	June 19	
Victor/Emile	Start procurement vacuum pumps and valves	June 19	
Giulia	Prepare priority file for equipment and supports	Next review	

Objectives of this review

- Define precisely our make or buy plan for EN-EA deliverables
 - What should be delivered ?
 - Who is responsible for the component/service ?
 - When is it required ?
 - Where will it be installed ?
 - How will it be produced (@ CERN, external company) ?
 - How much will it cost ?
- Establish a baseline for next reviews (every 2-3 months)
- Define synergies with EA Equipment master plan
- Get manufacture started asap

Thanks for your attention!

