

Minutes PSB Upgrade WG Meeting 24th May 2016

Participants: S. Albright, T. Birtwistle, J. Borburgh, J. Coupard, L. De Mallac, J. Devine, G.P. Di Giovanni, A. Floriduz, A. Funken, G. M. Georgiev, G. Guidoboni, L. Kobzeva, B. Mikulec, S. Moccia, M. Morgenstern, A. Newborough, M. Paoluzzi, J. Tan, W. Weterings.

Agenda (<https://indico.cern.ch/event/532551/>):

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1. Approval of Minutes

- [The minutes of the LIU-PSB WG meeting #173](#) have been approved.
- [The minutes of the LIU-PSB/PS WG meeting #1](#) have been approved.

2. Communications

- **LIU-PT Meetings:**
 - Meeting with LIU and TE/MS took place on 10th May, the minutes have been published [here](#).
 - LIU dedicated meeting with EN/EL took place the 18th May (agenda [here](#)) to establish priorities for the EYETS cabling/decabling.
 - The LS2 Master schedule was presented by J. Coupard, available [here](#).

3. Follow-up of Open Actions

- J. Tan on "Make sure that the SRR or ECR for BLM for the PSB and transfer lines is submitted. The SRR or ECR should include FLAT ionization chambers and ionization chambers to replace ACEMs." → C. Zamantzas would like to extend the deadline of the action. J. Coupard mentioned that the ECR for EYETS have to be approved by August 2016, which means that the latest deadline for submission of a the ECR is the end of June. **Deadline postponed to end June 2016**
- S. Moccia on "Prepare a document containing the requests received for the demineralized water cooling system." → S. Moccia asked to postpone the action to middle of June 2016. **Deadline postponed to the 7th June 2016 to review the status at the next LIU-PSB meeting.**

4. Status of Safety Files

- L. Kobzeva presented the status and schedule for the preparation and approval of the **safety files**, see [here](#).
- Four safety files have to be prepared for the LIU-PSB:
 - PSB Rings, excluding Section 1L1 and 15L1. Safety package coordinator: K. Hanke. Editor: L. Kobzeva.

- Injection Region, including Section 1L1 and 15L1. Safety package coordinator: W. Weterings. Editor: L. Kobzeva.
 - Extraction Region. Safety package coordinator: J. Borburgh. Editor: L. Kobzeva.
 - POPS-B, Building 245 (B245). Safety package coordinator: F. Boattini. Editor: L. Kobzeva.
- A HSE-SEE correspondent (for conventional safety aspects) is assigned to each safety file. A HSE-RP correspondent is appointed per machine.
- **Documents:**
 - The **first document** is the so called **descriptive part**, and it covers the modifications done to the different PSB areas in the framework of LIU.
 - The **second document** is the so called the **demonstrative part**. The document is needed to identify the hazards, the assessment of the risks induced by those hazards and define the measures taken to remove or mitigate the risks to an acceptable level.
 - The **third document** is the so called **operational part**, which is a collection of the Safety-relevant documents and procedures required to operate and maintain the system or the facility, to dismantle it and dispose of its components safely.
 - The last document to be prepared, **part four**, will be a summary of the records, experience and monitoring of the system or the facility.
- For each safety file a **launch safety agreement** (called LSA) should be prepared by the HSE correspondent:
 - A launch safety agreement is **a summary of all the regulation to be applied on the area described by a safety file**.
 - The safety files of the LIU safety packages do not need to be approved by the Complex Manager (F. Bordry). In the context of a project only the approval of the project leader is required (M. Meddahi).
 - **Status: The HSE launch safety agreements have been launched for the LIU-PSB safety packages, with the exception of the extraction region which will be launched by the end of the week**
 - **However, the HSE launch safety agreement for B245 needs to be revised following the POPS incident and the one of the injection region due to the addition of the BRF2 bunker.**
- **Status of the descriptive documents:**
 - **All documents have been prepared and are available on EDMS.**
 - **The document for the PSB Rings is in ENGINEERING CHECK.**
 - **The document for the PSB Injection Region is currently in ENGINEERING CHECK, and it will be updated due to the installation of new transformers in BRF2.**
 - **The document for the PSB Extraction Region is in WORK:**
 - The reason for it is the **missing information about power converters in the extraction lines BT-BTP. These information will be available by the end of the year.**
 - L. Kobzeva and A. Funken asked if the document could be circulated in engineering check in order to gather additional comments. **After some discussion K. Hanke recommended to leave the document in work and launch the review when all the information is available.** The current version of the document could be reviewed anyway by the experts before any formal approval.

- **The document for B245 is in WORK and it will be updated following the POPS incident.**
- **Status of the demonstrative documents:**
 - **The EDMS documents are currently in WORK. The objective is to launch the ENGINEERING CHECK at the end of June 2016.**
- **Timeline:**
 - **The descriptive and demonstrative documents are expected to be finalized by the end of the year.**
 - **The operational documents should be ready before commissioning and regularly updated.**
 - The documents shall be sent to the DSOs and PS-CSAP.
 - Afterwards the documents will be signed by R. Steerenberg (PS-CSAP chairman) who will recommend the PL to approve the documents.
 - At the end of LS2, **when the LIU reaches its end as a project and the LIU modification are integrated in the PSB machine**, the existing safety file for the PSB will be updated and the safety files of the LIU-PSB safety packages attached to the EDMS structure of the PSB, under "CERN safety files". **The PSB safety file shall be kept updated everytime there is a major change.**
- S. Moccia remarked about the difficulties to describe a complete set of safety procedures for the demonstrative document at this point in time. A. Funken encouraged to first describe the present hazards/risks and their control measures **and then expand the documents as the groups gain knowledge with their systems.**

5. Forecast for the Radioactive Waste

- L. Kobzeva presented slides about the motivations and requests for a forecasts of the waste and radioactive material storage, see [here](#).
- In the safety files, two main aspects should be addressed:
 - The waste produced during the life-cycle (installation/upgrade, commissioning, maintenance and operation).
 - The dismantling of the facility and disposal of the components of the machine at the end of their lifetimes.
- **Each project needs to establish the inventory of conventional waste and chemical waste to estimate the annual quantity of waste produced:**
 - CERN is responsible for the collection, disposal, transport, selection and elimination of conventional waste.
 - **The estimate shall be done by category, detailing to which phase of the life cycle of the project it corresponds.**
 - **Information about the categories for the conventional waste are available at http://gs-dep.web.cern.ch/en/Waste/What_goes_where.**
 - **Information about the categories for the category of chemical waste are available at http://gs-dep.web.cern.ch/en/Waste/Chemical_waste.**
 - K. Hanke asked which material should be considered as conventional waste. L. Kobzeva replied that this category applies to **material which is not radioactive, for instance cables.**
 - **A template has been provided [here](#):**

- The typical information required are about material composition, volume, weight, number of components, etc, etc.
 - **The template should be filled by the WP-holders and sent back to L. Kobzeva and A. Funken.**
 - K. Hanke expressed concerns about the possibility to evaluate precisely all the standard waste for all the equipment in the PSB machine. A. Funken replied that the purpose is to prepare the safety documentation for the LIU project not the whole PSB. However, L. Kobzeva added that the same information are also needed for the safety documentation of the PSB she is preparing, so it would be preferable to collect all the information about the waste even if not directly linked to a LIU safety package.
 - **K. Hanke accepted the idea to separate the inventory from the safety files and include all available information. Nevertheless he expressed his concern about the manpower which would be required for a such a task.**
 - A. Funken added that the LIU safety files should include the waste produced during during the life-cycle: Installation/upgrade, commissioning, maintenance and operation. The aim of the safety file is also to demonstrate that the waste is minimized at the source (i.e from the design phase).
- **Radioactive material and radioactive waste:**
 - **Every material coming from the tunnel is considered as radioactive.**
 - **All material that could be re-used in the future is classified as radioactive material.**
 - **All material that will not be re-used after the removal from the tunnel is classified as radioactive waste.**
 - **The information has to be provided to the RP Group** which, in turn, will organize the arrangement for a proper storage and facilitate the elimination of the waste.
 - **Tables for listing the future radioactive material have been already prepared in 2015, see [here](#).**
 - **Tables for listing the future radioactive waste have been already prepared in 2015, see [here](#).**
 - **The WP-holders should check the content of the tables and update it accordingly.**
 - M. Paoluzzi asked about the reason behind this request, given the work required to fulfill it. L. Kobzeva replied that this is a formal request to comply with the new regulations. The aim is to allow the RP Group to assess the level of radioactivity and classify the material and waste at an early stage for proper storage/elimination.
 - **Regular updates are required to allow the timely provision of storage space.**
 - Several WP-holders argued about the amount of work which would be required to describe with the requested precision the material composition of their equipment. B. Mikulec said that, while a great effort would be needed from each group, this task cannot be ignored because it will simply get worse with time. **S. Moccia asked if it would be possible to give rough estimates, at first order, and wait for the feedback from the RP Group. K. Hanke seconded the idea to limit the amount of details to fill in the tables.** A. Newborough added that indeed this is the approach followed by the TE-MS-C-MNC Group.
 - G. M. Georgiev mentioned that sometimes it is impossible to estimate the material composition. As an example, for several cables the specifications are unknown and there is no record available.
 - **The information is requested in a timely fashion, so it was proposed to regularly follow it up at the upcoming LIU-PSB meetings.**

- J. Tan asked if this information will only be related to LIU or it will include the work to be done under CONSOLIDATION. L. Kobzeva replied that every bit of information is useful, so it is preferable to include all the available information about any material which will be replaced in the PSB machine.
- **J. Tan asked if each section leader is aware of this request given the large amount of FTE involved. B. Mikulec mentioned that probably a similar request should be presented at the IEFC and the groups should be requested to provide the FTE needed for a similar task as the request is not restricted to the LIU project. J. Coupard proposed to K. Hanke to discuss it with M. Meddahi at the next LIU-PT meeting which is the contribution LIU should provide to this effort.**
- **The request for each WP-holder to fill the tables for the conventional and radioactive waste and material will be discussed with the LIU management at the LIU-PT meetings, to decide the LIU contribution to this effort.**

6. HST Readiness for HW Installation/Commissioning

- G. Guidoboni and B. Mikulec contacted all the experts involved in the installation and commissioning of the HST.
- All the equipment groups are ready for installation, but for the acceptance test of few vacuum chambers.
- **Concerning the H0/H- monitor a second prototype is under testing, but no news have been propagated to B. Mikulec or G. Guidoboni. This is the remaining outstanding issue. J. Tan will investigate it with F. Roncarolo.**
- The preparation for the applications is ongoing.
- **B. Mikulec proposed to stop the regular review of the readiness since all the equipment group responded positively and are ready.**

7. AOB

- J. Devine and A. Floriduz presented an inventory of the old and new racks in B361 with their power supplies, see [here](#):
 - The aim is to quantify how much power is available today and how much will be needed in the future for the new distribution system.
 - Also the UPS distribution will be included in the inventory in the next weeks.
 - The inventory is filled to about 95%. Whenever the table is completed, a summary could be presented at one of the upcoming LIU-PSB meetings.
 - **The content of this inventory will serve as a basis for the preparation of the ECR.**
 - D. Hay asked if this inventory is based on the list prepared with G.M. Georgiev during LS1 and how much more information was added to it. A. Floriduz replied that not much additional information was needed to the table prepared by G.M. Georgiev and D. Hay, as the list was already rather complete.
- **S. Moccia reported that the call for tender for the CV work in B245 has been launched few weeks ago. The final committee is expected in September 2016.**
- T. Birtwistle reported that the ECR for the wideband pickup in the BTP line should be relaunched before the EYETS. J.M. Lacroix confirmed the new position is fine. T. Birtwistle will discuss it with J. Belleman and take care of the approval process.
- **K. Hanke reminded the WP-holders to send back the information about the expected spending for 2016.**

- Next meeting is scheduled for the 7th June 2016.