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| BPM Electronics and System Design CDR |
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| Critical Design Review (CDR) 23-24 May 2016, Lund, Sweden |
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| **Charge for the CDR**  |
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 **Purpose of the CDR**

The purpose of the preliminary design review is to verify that the design fulfils the requirements, and is well matched to these boundary conditions. Also, the CDR covers documentation, verification, planning, risks and safety issues.

Passing the CDR is a prerequisite for starting production.

**Scope of the CDR**

The main focus of the CDR is the BPM electronics and overall system design.

**CDR Committee**

The CDR committee consists of:

* Manfred Wendt, CERN, External reviewer – Chair
* Andrei Shislo, SNS, External reviewer
* Andreas Jansson, ESS BI review secretary
* Timo Korhonen/Daniel Piso, ICS
* Annika Nordt, ICS/MPS
* Tom Shea, ESS BI
* Mohammad Eshraqi, ESS Beam Physics
* Inigo Alonso, ESS Linac
* Edgar Sargsyan, ESS Linac
* Anders J Johansson, ESS/LU LLRF
* Marcelo Ferreira/Fabio Ravelli, ESS Vacuum
* Lali Tchelidze/Duy Phan, ESS AD Safety
* Enric Bargallo, ESS ICS RAMI
* Matthew Conlon, ESS AD QA
* …

**Presenters and Observers**

* Rafael Baron, BPM system lead (outgoing)
* Steve Molloy, BPM system lead (incoming)
* ICS presenter TBD…

**Supporting Documents**

The supporting documentation will be provided to the committee about two weeks in advance, on the review Indico page, which also contains the agenda. Documents will include:

* …

Presentations will also be available on Indico site <https://indico.esss.lu.se/event/829/>.

**Committee Charge**

The committee is asked to consider the following questions. Where appropriate, please organize the responses by component/system.

1. Does the design fulfil all requirements and respect all interfaces, and is the design sufficiently mature and level of documentation appropriate to start manufacturing/procurement?
2. Is the planning appropriate and consistent with the overall ESS plans and milestones?
3. Is there an acquisition plan for major procurements, and is the lead time for procurements and contracts properly accounted for in the planning?
4. Is the verification strategy appropriate?
5. Have potential safety hazards been properly identified and considered in the design choices? If required, is there a mitigation plan?
6. Have reliability aspects been considered in the design choices?
7. Have the project risks and opportunities been properly identified and their impact considered in the design? If required, is there a mitigation plan?
8. Were any other issues identified during the review?

The results of the review should be summarized in a short report, outlining the answers to the above review questions and whether the review is considered passed, passed with action items, or failed. The report may also provide findings, comments, and recommended actions. Actions should be clearly categorized as one of the following:

* Must be addressed before CDR is considered closed and production starts
* Must be addressed prior to the TRR
* Must be addressed at some time during the project