

Summary of LS2 ECRs LIU-PSB Scope

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LIU-PSB meeting 19th June 2018



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General information

- The following slides cover only LIU-PSB scope. However, we do also require ECRs for other activities where a change impacts on “Form, Fit or Function”
- Please use the correct template for ECRs, available here: <https://quality.web.cern.ch/templates>
- If you have an LIU-PSB activity that is missing from the lists, and you think an ECR may be needed, please contact me

Integration information

- Due to the integration / design workload, the ECR process has been modified slightly:
 - ECRs can be sent out 'under approval' without fully completed integration, so long as they contain at least a minimum of information (e.g. total volume required by equipment)
 - This allows all other teams to be notified sooner and perform their checks (e.g. safety, impedance etc.)
 - **An ECR cannot be finally approved without a completed / validated integration study(ies)**
- Please continue to follow integration activities:
 - ICL (integration) meeting once every ~2 weeks (Wednesday)
 - Contact is Jean Pierre Corso

LIU-PSB LS2 ECRs

Multiple Groups

Description	Group	Responsible	ECR Reference	ECR Status
Upgrade of the PS Booster extraction lines BT, BTM and BTP	TE-ABT (input from others)	Wolfgang Bartmann		Needed
Magnet modifications in BT, BTM and BTP (including BT.BHZ10 and BTM.BHZ10)	TE-MSK	Antony Newborough	SRR's approved: PSB-LJ-EC-0010 PSB-LJ-EC-0011	
Beam instrumentation modifications in BTP line (LIU related BTV changes in BT line already covered by a separate ECR)	BE-BI	Lars Soby		
Installation of new BLMs on the PS Booster extraction lines	BE-BI	Christos Zamantzas		
EN-STI beam stopper in BTP	EN-STI	Edouard Grenier-Boley		
All related vacuum changes	TE-VSC	Jose Somoza		
Include reference to the ECRs for the BT Line Septa	TE-ABT	Wolfgang Bartmann		

Various contributions needed from groups for the overall ECR

LIU-PSB LS2 ECRs

Multiple Groups

Description	Group	Responsible	ECR Reference	ECR Status
Add a new BPM on the BI line (upstream of BI.SMV10)	TE-ABT, BE-BI	Christoph Hessler Lars Soby	<i>SRR approved PSB-LJ-EC-0013</i>	Needed

Multiple Groups

Description	Group	Responsible	ECR Reference	ECR Status
Modifications to the Booster extraction main unit and BT1/4.BVT10, BT2/3.DVT10 (upto the BPMs)	TE-MSc, TE-VSC, BE-BI	Antony Newborough Jose Somoza		Needed

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TE-ABT

Description	Group	Responsible	ECR Reference	ECR Status
Replace kicker BT.KFA10 (same size, but potential implications on impedance)	TE-ABT	Luc Sermeus, Wim Weterings	1955039 PSB-MK-EC-0001	Under Approval (Int. need 3D models)
Replace extraction kicker BEr.KFA14L1 (same size, but potential implications on impedance)	TE-ABT	Luc Sermeus	1955075 PSB-MK-EC-0002	Under Approval (impedance checks ongoing)
Installation of Upgraded PSB Recombination Septa BT.SMV10 (BT1 and BT4)	TE-ABT	Michael Hourican	1459318 PSB-MSMIC-EC-0001	Released
Installation of Upgraded PSB Recombination Septum BT.SMV20	TE-ABT	Michael Hourican	1459320 PSB-MSMID-EC-0001	Released
Exchange KSW magnet in 16L1, 1L1 and 2L1	TE-ABT	Luis Coralejo	1422350 PSB-MKKSW-EC-0001	Released
New distributor BI.DIS10	TE-ABT	Wim Weterings	1518483 PSB-MSMIA-EC-0001	Released
New Septum BI.SMV10	TE-ABT	Michael Hourican	1561343 PSB-MSMIB-EC-0001	Released
New injection region in the Booster 1L1	TE-ABT	Wim Weterings	1422358 PSB-L-EC-0001	Released

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TE-MSC

Description	Group	Responsible	ECR Reference	ECR Status
Upgrade of the BHZ Main unit bending magnets (including injection bending magnet and reference magnet)	TE-MSC	Antony Newborough		In work
Damping Resistors on PSB Bending and Quad Magnets	TE-MSC	Antony Newborough	1817987 PSB-M-EC-0001	Under Approval (studies ongoing)
Booster Injection Transfer Line Magnet Upgrades and Consolidation	TE-MSC	Antony Newborough	1494503 PSB-LJ-EC-0001	Released

Plus contribution of information for the BT, BTM, BTP Lines

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TE-EPC

Description	Group	Responsible	ECR Reference	ECR Status
Booster extraction septa transformers modifications (in tunnel)	TE-EPC	Jean-Marc Cravero		S. Pittet confirmed no change to volume
Upgrade of PS Booster Corrector and Quadrupole Power Supplies	TE-EPC	Louis De Mallac	1874665 PSB-R-EC-0005	Under Approval (integration needed)
Booster Power House (BHP) Converters Upgrade	TE-EPC	Serge Pittet	1868992 PSB-R-EC-0003	Under Approval (integration needed)
Installation of the power converters for BI.SMV10 magnets for LIU PSB injection	TE-EPC	Jean-Marc Cravero	1887658 PSB-R-EC-0007	Under Approval (integration needed)
Installation of new Power Converters for PSB injection Qstrip, Correctors, Quad.	TE-EPC	Serge Pittet	1821166 PSB-R-EC-0004	Under Approval (integration needed)
New MPS for LIU Booster (POPS-B)	TE-EPC	Fulvio Boattini	1643409 PSB-LJ-EC-0008	Released
Consolidation and upgrade of the power converters of the LT and LTB lines	TE-EPC	David Nisbet	1851780 PSB-R-EC-0006	Released

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BE-BI

Description	Group	Responsible	ECR Reference	ECR Status
New BLMs Installation in the LT, LTB and BI Lines for H- exchange monitoring	BE-BI	Christos Zamantzas		Needed
8 Wire Scanners in the PSB 4L1 and 11L1	BE-BI	Raymond Veness	1962159 PSB-BWSRA-EC-0001	Under Approval
Relocation of BI.BTV30	BE-BI	Stephane Burger	1572803 PSB-LJ-EC-0006	Released
Relocation of BT2.BTV10 and BT3.BTV10 in the PS Booster	BE-BI	Stephane Burger	1494819 PSB-LJ-EC-0002	Released

Plus contribution of information for the BT, BTP Line, the new BPM in the BI Line, and extraction line BLMs

BE-RF

Description	Group	Responsible	ECR Reference	ECR Status
The New PS Booster RF System (Finemet Cavities)	BE-RF	Mauro Paoluzzi	1733551 PSB-ACWFB-EC-0001	Approved, but integration model to be updated

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EN-STI

Description	Group	Responsible	ECR Reference	ECR Status
Removal of 2 beam stoppers (BI.STPFA and BI.STPSW) on the BI line	EN-STI	Edouard Grenier-Boley	1835875 PSB-LJ-EC-0012	Under Approval (vacuum chamber models/design needed)
New PS Booster Absorber in Period 8	EN-STI	Inigo Lamas Garcia	Draft only so far	In work (visit on site this morning)

Plus contribution of information for the stopper in BTP line

EN-CV

Description	Group	Responsible	ECR Reference	ECR Status
Ventilation system in the PS Booster	EN-CV	Gabor Petrika		Needed (delayed)
Consolidation of the Booster chilled water plant (b. 361)	EN-CV	Gabor Petrika	Draft only so far	In work (integration needed)
Consolidation of the Booster cooling plant	EN-CV	Gabor Petrika	Draft only so far	In work (integration needed)

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EN-ACE

Description	Group	Responsible	ECR Reference	ECR Status
New LBE line plus infrastructure	EN-ACE	Aurelio Berjillos	1805620 CPS-LJ-EC-0005	Under Approval (integration needed)
Partial dismantling of Linac2	EN-ACE	Aurelio Berjillos	1688400 CPS-LJ-EC-0003	Under Approval (final verification of equipment responsibilities ongoing)
Connection of Linac4 to BHZ20	EN-ACE	Aurelio Berjillos	1688387 CPS-LJ-EC-0002	Ready, but to be approved at the same time as: CPS-LJ-EC-0003



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Thanks for your attention