

SUMMARY OF THE 1st PS&SPS DAYS

CERN, January 13-14, 2005

E. Métral

⇒ Decided by ABMB (29/03/04) in the frame of the ATC reorganisation

“A special two-days technical review of all accelerators and experimental areas is organized once a year for general information and to identify the main issues concerning operational aspects, beam machine performances, consolidation, modifications and possible improvements, etc.....”

◆ Inspired by LHC workshop

- Not a status report but focused on key issues with recommendations of actions
- 1/2 day sessions with a general theme
- Limited participation by invitation only (badges at entry)
- In the same room (council chamber) with identical tools

◆ With some differences

- No public summary but analysis of recommendations for decision by ABMB ⇒ Next Monday (31/01/05)
- No report (abstract and slides available on WWW site)
- Simultaneous Webcast and transmission to AB auditoriums (Prevessin&Meyrin)

PROGRAM COMMITTEE

- G.L. Arduini, **Chairman of session 2**
- S. Baird, **ABOC chairman**
- J.P. Delahaye, **chair**
- R. Garoby, **Chairman of session 3**
- K. Hanke, **Technical secretary of session 1**
- T. Kehrer, **Administrative secretary**
- E. Métral, **Technical secretary of session 2**
- L. Rinolfi, **ABIC chairman**
- J.P. Riunaud, **Chairman of session 1**
- F. Ruggiero, **APC chairman**
- R. Steerenberg, **Technical secretary of session 3**

AIM OF THE WORKSHOP

⇒ Review the key issues of the PS&SPS complex and the work program in 2005-2006 to ensure an efficient start-up in 2006

3 SESSIONS OF ½ DAY EACH (1/3)

Session 1 - Committees Review and Recommendations - Council Chamber (09:00-12:30)

- Conveners: RIUNAUD, Jean-Pierre (Chairman); HANKE, Klaus (Scientific Secretary)

time	[id] title	presenter
09:00	[28] What is CERN expecting from the AB Department for the coming Years?	Dr. MYERS, Steve
09:20	[7] Can we stop the Degradation of the Operational Performance of our Accelerators?	SIMON, Baird
09:50	[20] Will there be enough Protons for Physics in 2006 - 2010?	Dr. BENEDIKT, Michael
10:20	[11] Machine Studies: What did we achieve, what remains to be done and what could be improved?	ARDUINI, Gianluigi
11:10	[16] Installations, Modifications, Consolidation in 2005: What is planned, and can we do it?	RINOLFI, Louis
11:40	[9] What is the Future of the Experimental Areas?	GATIGNON, Lau
12:10	[8] How will we cope with Safety in the long Shutdown?	CENNINI, Paolo

3 SESSIONS OF ½ DAY EACH (2/3)

Session 2 - Shutdown Activities in 2005 - Council Chamber (14:00-17:30)

- Conveners: ARDUINI, Gianluigi (Chairman); METRAL, Elias (Scientific Secretary)

time	[id] title	presenter
14:00	[14] What is falling apart in the injector chain	JOHN, POOLE
14:20	[21] What is falling apart in the technical services for the PS&SPS complex	SABAN, Roberto
14:40	[27] Renovation of the 45-year old PS magnets	Mr. ZICKLER, Thomas
15:00	[24] Reliable and easy-to-use instrumentation for a difficult start-up	Dr. RAICH, Uli
15:40	[26] How to get reliable PSB sieve and PS&SPS dumps for 2006?	LOSITO, Roberto
16:00	[17] Operating the septa beyond their design specs	Mr. BORBURGH, Jan
16:20	[13] The way to fast and "loss-free" SPS kickers	Dr. GAXIOLA, Enrique
16:40	[23] What remains to be done to have ISOLDE fully integrated and REX fully operational?	Dr. LINDROOS, Mats
17:00	[25] How can we restart the AD in 2006?	Mr. ERIKSSON, Tommy

3 SESSIONS OF ½ DAY EACH (3/3)

Session 3 - Preparation of Restart in 2005-2006 - Council Chamber (09:00-13:00)

- Conveners: GAROBY, Roland (Chairman); STEERENBERG, Rende (Scientific Secretary)

time	[id] title	presenter
09:00	[12] Will PS&SPS be ready for CNGS start-up in 2006?	Dr. METRAL, Elias
09:20	[1] How far can we increase the Intensity per Pulse for CNGS?	SHAPOSHNIKOVA, Elena
09:40	[5] When can we have a clean Multiturn Extraction from the PS?	Dr. GIOVANNOZZI, Massimo
10:10	[19] Should we prepare for using a 900 ms basic period in the near future?	Dr. BENEDIKT, Michael
10:50	[3] Can we afford to re-start the SPS in 2006 without multicycling?	FRAMMERY, Bertrand
11:20	[6] Can we sufficiently protect the SPS and its extraction lines against damages in multi-cycling and high intensity beam context?	Mr. PUCCIO, Bruno
11:40	[10] How many protons can we afford to loose annually in the PS Complex?	Dr. OTTO, Thomas
11:55	[22] How many protons can we afford to loose annually in the SPS and its beam lines?	FORKEL-WIRTH, Doris
12:20	[15] Can we operate CERN's Technical Infrastructure from the MCR efficiently?	Mr. SOLLANDER, Peter
12:40	[2] Towards the CCC	Dr. BAIRD, Simon

MAIN ISSUES (1/2)

- ◆ Safety issues for 2005 SD \Rightarrow ALARA principle...
- ◆ ISOLDE alone in 2005 \Rightarrow Make best use of the 2005 run
- ◆ The 2006 schedule must be defined asap
 - No SPSC/Villars official recommendations yet
 - Already approved / running experiments + CNGS
 - AD = anti LEIR
 - LHC ion beam commissioning in PS
 - Sector test
 - West extraction commissioning
 - ...
- ◆ Consolidation
 - PS magnet renovation
 - AD consolidation
 - Cross check consolidation programme vs. operation needs

MAIN ISSUES (2/2)

- ◆ CCC \Rightarrow Planning is tight (risk and need for an emergency solution)
- ◆ Instrumentation in the PS complex
- ◆ CNGS
 - Feasible (and it is conceivable to push performance beyond nominal), but not before beam losses are significantly reduced
 - Make table of beam losses at the various places (weighted by the energy...) to define a priority list of actions
- ◆ SPS TIDVG, PS internal dumps, PSB sieve, PS SEH 31...
- ◆ Multi-cycling is mandatory for efficiency (Today: 30 min per SPS supercycle change, i.e. 2% of a day). Realistic goal: 5 min
- ◆ 900 ms implementation in PS&SPS
- ◆ ...