

Low Output Impedance Driver Collaboration MEETING

Issued by
A Seville

Minutes of the meeting held on Friday 19 August 2005

2 November 2005

PRESENT:

JWG	Thomason (Chair)		
DL	Bayley	CR	Lambourne
GM	Cross	M	Middendorf
S	Fukumoto	MP	Mills
D	Horan	A	Seville
Y	Irie	A	Takagi

Apologies were received from PV Drumm, MG Glover, S Warner and TW Western

1. Schedule for remainder of KEK / ANL visit

- Friday 19th : The aim would be to start re-establish the conditions of last December by the end of the day and if all went well increase the duty factor of up to 50%.
- Saturday 20th : The problem of the 100Hz ripple would be addressed, starting at 8am.
- Sunday 21st : A decision on the schedule would be made at close of play on Saturday.
- Monday 22nd : Milestone would be for all equipment to be ready to go for swept frequency operation, starting at ~1kV to modify the bias function. The current monitors would be used to feed back to see minimum current. The liquid resistor value would need to be lowered.
- Tuesday 23rd : The voltage would be stepped up to ~5kV.
- Wednesday 24th : The voltage would be run up to full power (~12kV).
- Thursday 25th & Friday 26th: Maintain running as an "endurance test".

A phase characterisation of the 2RF cavity and HPD is needed before the system can be put in closed loop (in the synchrotron).

Action DLB to see if there was a 100Hz compensator available and provide unit by end 19/08.

2. What Happens Next?

Timing of the ISIS schedule will prevent use of the LOI system in the synchrotron before the MICE hall is required for the MICE experimental work commencing in the next long shutdown. The two options are to move the LOI equipment:

- A): Into Hall 2, this has limited space, but is close to the synchrotron and is currently available.
- B): Into the Pre-injector EHT area, which has more than adequate space but is more distant from the synchrotron and will not be available until the RFQ has been successfully run for 2 years (ie in August 2006), though this might be mitigated by doing the preparatory work such as power, water and cabling prior to removal of the Cockcroft Walton set. No tower water is available in the EHT area and any additional power requirements would need to be addressed.

It was agreed that the EHT area would be the preferred option.

Low Output Impedance Driver Collaboration MEETING

Minutes of the Closing meeting held on Friday 26 August 2005

PRESENT:

JWG	Thomason (Chair)		
DL	Bayley	T	Oki
S	Fukumoto	A	Seville
Y	Irie	A	Takagi

What happens next?

The next phase would be another run similar to the run just completed, to include a loop for cavity tuning and control from the ISIS Main Control Room. The provisional plan would be to move the LOI equipment into the EHT area in the Long Shutdown which now starts in October 2006*. The sequence for work would be:

	Task	Duration
1	Movement of the Cockcroft Walton set out of the EHT area	1 wk
2	Move the LOI equipment in	1wk
3	Cabling / water plumbing / additional power supplies	3mnths
4	Platform for Chillers	1 mnth

*Since the meeting it has become apparent that the EHT area will not be available before the end of the 2006 long shutdown. This, together with the logical constraints of providing power into the EHT area and effort to move the equipment has led to our looking into siting the LOI equipment in Hall 2.

Actions

JGWT	to talk to David Findlay about timescales for availability of the EHT area. [Done: DJSF will not allow early decision on decommissioning Cockcroft Walton. Combined with lack of effort available during long shutdown it is unlikely that any equipment will be removed from EHT area until June 2007]
JGWT	to talk to a structural engineer re: requirements for outdoor chiller platform.
DLB/SW	find out substation requirements.
AS	Return LeCroy Oscilloscope and ENI Amplifier to KEK.
All ISIS	Investigate possible problem with the cavity.
TO	Write up results to date in an EPAC paper
JB/AS/DLB	Move portable LOI equipment into EHT area
JGWT	Arrange Radiation Survey for EHT area during ISIS operation and check floor loading. [Done: Radiation levels are too high to work in EHT area while ISIS is running – would require additional shielding to be installed]
AS	Look into better running test auxiliaries and data acquisition

Date of Next Meeting

Will depend on schedule for operational tests (After EPAC, before move to EHT area)