



saclay

WP 10 Report

Bernard Visentin

CARE SRF Meeting – Warsaw – September 2007

RF Infrastructure Transfer

dapnia



saclay

Finished in May 2007

Vertical & Horizontal cryostats Helium plant (liquefier...) RF Power (klystrons...) except Chemistry and Clean Room (2008)





RF Infrastructure Transfer (cont.)

dapnia

<u>Site Views</u>:

saclay

Vertical Test Stands & CryHoLab





RF Infrastructure Transfer (cont.)

dapnia

saclay



Control Room

Site Views :





RF platform

($1.3\ GHz$ and $700\ MHz$)

RF Experiments on VTS

dapnia



RF Tests in Vertical Cryostats restarted in June 2007:

saclay

- VTS $n^{\circ}2$ for R &D on EP Single cells (**WP 5.1**) @ 1.3 GHz 1.7 K
- VTS $n^{\circ}1$ for **Spiral 2** program : Quarter Wave Resonator @ 88 MHz 4K



RF Experiments on HTS

dapnia

CryHoLab is not ready at this time



D.I. water only ready in mid-October (problems with cooling tower) :

- **saclay** *peeling of Al blades* \rightarrow *cleaning in first time then replacement*
 - authorization document for safety use





with as Consequences a delay to restart :

- *He liquefier (compressor)*
- *RF power (klystron)*

« Saclay II » C.T.S. with M.F.T.



and installed on CTS

« Saclay II » C.T.S. with M.F.T.

dapnia



saclay

Magnetostrictive Fast Tuner adaptation

is manufactured and installed on CTS / 9 cell cavity





Schedule

dapnia It will be difficult to test MFT tuner in CryHoLab before the end of year (Consuming time to condition He production - Cryholab cooldown - RF & Coupler) N°. Nom de la tâche 2007 2005 2006 2008 Tri 1, 2005 Tri 1, 2006 Tri 1, 2007 Tri 1, 2008 saclay 0 Avr. Sep Fév Jul Déc Mai Oct Mar Nov. WP10 CRYOSTAT INTEGRATION TESTS 1 2 Installation Moving 3 Vertical cryostats moving \checkmark 4 🎫 终 CRYHOLAB - Liquefier - Klystron moving, commissioning 5 CRYHOLAB Adaptation to 9 cell \checkmark 6 Mechanical adaptations (design-manufacturing-mounting) \checkmark 7 Low performance cavity and coupler transfert from DESY & LAL \checkmark 8 Assembly in Cryholab and Cryogenic test \checkmark 9 High performance coupler - High Power Pulsed Test V 🍥 10 Magnetic shielding with cryoperm \checkmark 11 \checkmark Integration tests in cryostat (1st test) 12 V 🔞 CEA Cold Tunning System + Piezo (Assembly & warm tests) 13 Installation of 9-cell & coupler - Cooldown \checkmark 14 Cold test (CTS + NOLIAC) in CryHoLab \checkmark 15 \checkmark Evaluate experimental results 16 \checkmark Integration tests in cryostat (2sd test) 17 Installation of CTS + Piezo PICMA \checkmark 18 Cold test (CTS + PICMA) in CryHoLab \sim 19 Evaluate experimental results ~ 20 Integration tests in cryostat (3rd test) 21 Mechanical adaptation \checkmark 22 \checkmark Installation of CTS + MSM Energen 23 Cold test (CTS + ENERGEN) in CryHoLab 24 Evaluate experimental results 25 Integration tests in cryostat (4th test) 26 New Coupler TTF V from LAL 27 Evaluate experimental results

To test MFT in Checchia @ DESY, is it conceivable?