

HCC *HARDWARE COMMISSIONING COORDINATION*

January 24, 2007, 10:00 in 112-R-028

Present: Esther Barbero, Alejandro Castañeda, Carlos Castillo, Mirco Coccoli, Gert-Jan Coelingh, Cristophe Coupat, Knud Dahlerup-Petersen, Claude Dehavay, Reiner Denz, Sandor Feher, Joaquín Íñigo-Golfín, Sandrine Le Naour, David Nisbet, Blanca Perea Solano, Mirko Pojer, Antonio Vergara, Markus Zerlauth

Powering Tests in Sector 7-8 - Preparation

Preparation for the Powering Tests

Antonio informs that the objective of the meeting is to create a list of activities to be completed in sector 7-8 before the interlock tests (PIC1) and the powering tests planned for the third weeks 8 and 11 respectively. These dates of course will depend on the progress of the cool-down.

Quench Protection System

- Some cables of the quench heater racks to be connected (AT/MEL).
- Cables of some QPS racks have to be pulled (TS/EL).
- Cabling of the racks for the main busbar protection units to be done (TS/EL).
- All the detector racks in UA83 will be in place this week (AT/MEL).
- In principle all the 600A modules are ready for PIC1. Reiner reminds that the detectors of these circuits will have to be calibrated during these tests.
- Once the required cryogenic conditions are met, all the QPS modules have to go through their Individual System Test. Reiner explains that these tests imply the firing of all every quench heater at least once. These tests will be carried out once the tunnel is accessible (AT/MEL)
- The 2 gateways that showed some malfunctioning the last weeks seem now to be stable. The post-mortem server, which also experienced some instabilities, seems now OK. The Fieldbus is working without problems.

Power Converters and PIC

- The power converters are ready for the Powering Procedure Tests (PPT) except for one 120A converter which will be available by the beginning of the tests next Monday (29/01).
- The interlock cables for some of the 600A converters have not been connected yet and some of them do not have the proper length. This is because the cables were actually pulled some years ago and the name and location of the racks have changed since then. It is agreed that AB/PO will connect the cables to the proper rack and converter. In case some extra cable with the proper length is needed, it will be requested urgently to Jean-Claude. (AB/CO and TS/EL)
- Markus informs that from the lesson learnt in UA67 it will be vital to completely check the interlock cables in each area some weeks before the actual PIC tests (in order to have enough time for corrective measures). Starting next Monday (29/01) his team will verify and connect all interlock cables in UA83 to the power converters and QPS equipment in order to assure the completeness of installations. RR77 will follow as soon as access is possible again (AB/CO, AB/PO, AT/MEL)
- Antonio remarks that it is important to advance as much work as possible in UA83 in order not to overload the few days we will have once the tunnel is open before starting the PIC1 tests.
- The interlock cables are identified only by their cablotheque number. Markus confirms that the link between the cable number and its circuit is right in the cablotheque. Nevertheless, he proposes to add a new label to such cables including the circuit name, this can be done after the powering tests (AB/CO).
- The interface boxes between the PIC and the UPS will not be installed before the end of the cool-down. That means that the associated interlock test will have to be carried out during PIC2. A similar scenario is expected for the other sectors, this should not be a big issue, but at least for sector 7-8 Markus would like to do as much as possible to have them ready for PIC1. Esther is in contact with Juan Gómez for detailing the installation schedule of these elements along the whole machine (TS/EL)

Cooling and Ventilation

- Joaquín informs that the filters in UA83 are being cleaned again today.
- Blanca reminds that a sample of the material deposited in the filters should be sent to TS/EL and AB/PO in order to have more information on the issue (TS/CV).
- Joaquín also informs that they need one day for providing full ventilation in the area. Antonio says that the nominal working conditions will not be reached till the end of the powering tests when all the converters will be powered together up to their nominal current. HCC will request the

nominal ventilation conditions when needed with enough delay. (HCC, TS/CV).

- It is requested to HCC to provide a schedule of the filter cleaning campaigns for the whole machine (HCC).
- The rest of the areas involved in the powering tests of sector 7-8 are ready.
- The water circuits will have to be balanced again after the installation of the warm magnets and the collimators in Point 7. Esther informs that the magnets are supposed to be installed by the end of February and the collimators much later. Since the balancing requires one week and it would affect the proper evolution of the powering tests, it is decided that such intervention will be only done when the commissioning of the warm magnets (which are not included in the powering tests) will require it. If possible, once the powering tests are completed (TS/CV).

600A Energy Extraction

- Software updates will be done in UA83 this week and in RR77 when access is allowed again (AT/MEL).
- All the switches that suffered spurious openings during the short-circuit tests and endurance tests have been replaced.

13kA Energy Extraction

- Knud remarks that the 13kA energy extraction has never been tested with real operating conditions. The functional tests in the DQS were very useful but some preparations still have to be done to finally validate the whole DQS & DQR systems.
- Arc detectors installed.
- The non-conformity regarding the wrong spin of the DQR will be corrected in the whole sector once access to RR77 is re-open (AT/MEL)
- Covers in the DQR terminals to be installed (AT/MEL)
- The two compressors of the ROESE stations are not working properly. The failure is being investigated (AT/MEL)
- The Switch Open Failure mode has to be tested at least once without current in the magnets and again with 1kA. The first should be included in PIC1 and the later in the powering test (AT/MEL, AB/CO)

WorldFip

- Claude is waiting for an intervention by Simon Brown in one UA83 WorldFIP socket. It will be carried out by the end of next week (TS/EL, AB/CO)
- The rest of the WorldFip network is installed and available.



Next meeting will be announced depending on the progress of the cool-down

Antonio Vergara