

SPES - Specific Services for CMS

Minutes of the meeting n° 11, held on 20/12/2000

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1. TK AND SE COOLING CIRCUIT

Markus Jeske presented his work about TK and SE cooling circuit. He presented a general layout and then details of each parts:

- the type of coolant
- the different heat exchangers with their characteristics (length, weight, materials...)
- dimensions of the pipes
- compressors and pumps with their characteristics
- valves used

The total cost has been estimated to be 500 000 CHF and the area used in the CV zone between 25 and 30 m².

Questions: About a possible security problem if the temperature in the cooling system reaches -20°C.

About brine security.

2. MUONS COOLING CIRCUIT

Andrea Tchoppe presented his work about the cooling circuit of the muons chambers.

Four different configurations have been presented, the differences between these configurations were in the circuit shape, it is to say parallel or serie. The best solution appears to be a mix of them. Some solid pipes will follow a path between the muon chambers and they will be linked to the chambers with flexible pipes.

G Faber said that some extra cooling power will be needed because new electronic devices have to be taken into account.

The integration of this circuit with other services has also to be checked.

Question: About the purging of this circuit.

3. ECAL COOLING CIRCUIT

A point about the purging circuit of the Ecal subdetector. Still in progress, some results should be presented in the next Spes meeting.

4. WEB DATABASE

Presentation of L Vila Nova Goncalves and I Wischrowska Polok work on the web database for the CMS cooling circuit.

Remark:

Question from G Faber wondering if the LV cables would be cooled separately or with a common cooling circuit.