Engineering Design Review of DCM of WP3
with a special session on cold diodes

Date : 15-16 April 2021

**Scope**: review the engineering design of the DCM and the cold diodes with the purpose of:

1. Verifying the maturity of functional and technical specifications
2. Verifying whether the design is adequate to meet functional requirements and for the intended use of the equipment
3. Verifying the level of maturity of the design and qualification
4. Assessing the level of readiness for the procurement of critical items
5. Assessing the level of readiness for prototyping and production

**Mandate** of the review committee:

1) Review the functional and technical specifications and confirm its completeness in terms of cryogenic, mechanical and electrical requirements;
2) Review the engineering design wrt cryogenic and operational aspects and wrt to mechanical and electrical aspects, including interfaces;
3) Review the electrical joints and associated resistance, the robustness of the electrical insulation and the instrumentation applied to the diodes and their leads;
4) Review the integration and installation plan in the LHC machine and the compatibility of the DCM location wrt the tunnel environment and interfaces with other systems;
5) Check the conformity of the safety requirements for both cryogenic and electrical aspects and compatibility of safety equipment with tunnel environment;
6) Review plan and schedule for DCM cryostat and diodes production and assembly;
7) Review status of the MIP and its maturity for the procurement of the critical components.