

## **Subject: Technical incident during ECT test**

During the stand-alone testing of the End-Cap Toroid on the C side (ECT-C) yesterday night there was a technical problem that caused damage to the isolation vacuum of a cryogenic line of the LAr end-cap. A course of actions has been decided this afternoon that will allow us to assess this damage as soon as possible, and to inspect if other parts have suffered. At no point persons were at danger.

What happened is that the ECT-C, when powered to almost 15kA, moved a few cm towards the calorimeter end-cap. The stand-alone test was made in a non-standard configuration, with the ECT-C closer to the calorimeter than in the final position. It was not retained sufficiently by friction on the rails and moved by magnetic forces. The ECT-C current was immediately ramped down when the incident happened. The LAr was transferred later on successfully into the storage dewar for safety reasons, but the cryostat is kept cold.

Preparations have started to open side C in the coming days in a careful way. This means also protecting nearby detector components and electronics. Once accessible towards the middle of next week everything will be checked.

It is too early to be sure about the schedule impact. If the damage is contained within what is known today, and the line in question can be repaired keeping the LAr end-cap cold (what the experts hope), then the impact should be contained within a few weeks, and we would follow basically the current schedule sequence. However a critical issue is when to complete the ECT-C test. This will be decided in due time.

We thank all colleagues and experts from the Collaboration and CERN for their prompt and effective intervention.

Kind regards,

Marzio Nessi and Peter Jenni