



Contribution ID: 698

Type: **Poster Presentation**

C2Po1G-04 [41]: JLab Chl1 2K Cold Box Replacement

Tuesday 23 July 2019 09:00 (2 hours)

There is growing evidence showing that the cold compressors in the Modified Sub-atmospheric Cold Box (SC1/SCM) of the JLab Central Helium Liquefier (CHL) are approaching the end of their life. Their replacement parts are no longer available due to obsolescence, thus placing the Physics program at serious risk. A new sub-atmospheric cold box (SC1R), which hosts five technologically superior, water-cooled cold compressors and a similar 4K-2K refrigeration recovery heat exchanger, was funded in July 2017, to replace the existing 2K cold box. The design of the new 2K cold box and the external support system have been completed allowing the project to enter the fabrication and assembly phase, which will be completed here at JLab. We present the design, fabrication, installation and commissioning schedule of the new 2K cold box.

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Session Classification: C2Po1G - Sub-Atmospheric Refrigeration