



Contribution ID: 796

Type: **Poster Presentation**

C2Po1G-05 [42]: Commissioning Plan for LCLS II 2K Cold Box

Tuesday, July 23, 2019 9:00 AM (2 hours)

Commissioning of the LCLS II cryogenic plant has been planned with respect to electrical and mechanical systems checkout, equipment cleanup, cool-down, and individual performance evaluation. This plant consists of warm and cold storage, helium compressors, 4.5 K and 2 K cold boxes, and all auxiliaries typical for helium refrigeration processes. The 2 K cold box, consisting of five cold compressors in series to produce the flow and pressures necessary for 2K operation, will be the last equipment installed and, along with an additional 10,000 L helium Dewar, will allow the entire plant to be commissioned as a single entity. The pre-commissioning stages, commissioning plan for 2 K cold box without connecting to the LCLS II LINAC, additional test equipment needed to simulate the loads, all process studies and associated controls are described herein.

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Session Classification: C2Po1G - Sub-Atmospheric Refrigeration