PIP-II
Project Director Report
May 2021

Project Highlights

- Project Planning Documents (PPDs) for the UK contribution to PIP-II were signed
- PIP2IT workshop held May 6-7 to review lessons learned, impact on PIP-II design
- Cryogenic Plant Building construction progresses well
- PIP-II has a new website: https://pip2.fnal.gov/

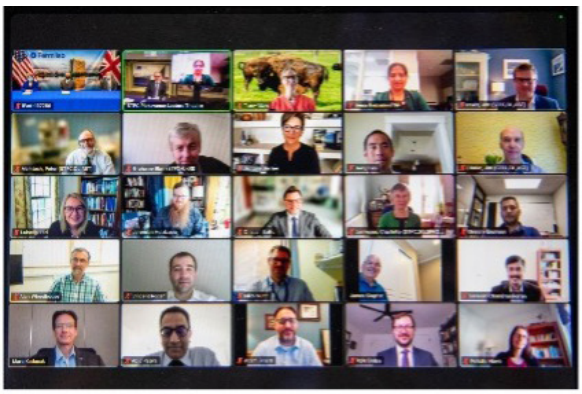
Major Upcoming Events

1-3 June	PIP-II Machine Advisory Committee meeting
14 June	PIP-II Project Executive Board (P2PEB#8)
12 August	Release of PIP-II Final Design Report

Project Planning Documents with STFC UKRI are signed

On May 11, the Project Planning Documents (PPDs) Part 1 and Part 2 for the UK contribution were signed by both parties, UKRI press release. Thanks to our UK partners for your collaboration!

STFC Executive Chair Professor Mark Thomson and Director of Fermilab Dr. Nigel Lockyer sign the PIP-II PPDs



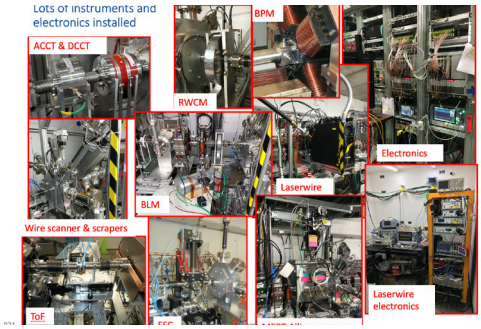
UK and US colleagues attend the signing ceremony

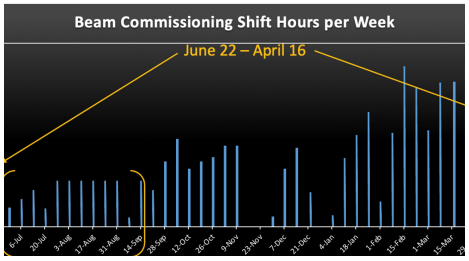
The Daresbury team working on PIP-II

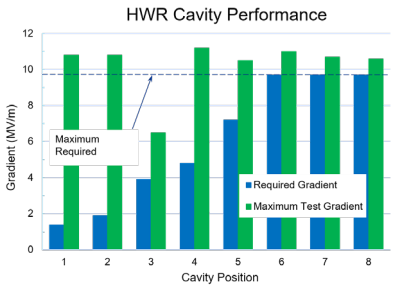
Fermilab Director Nigel Lockyer, Fermilab Site Office Manager Rick K. Verhaagen and PIP-II Project Director Lia Merminga at the signing ceremony

PIP2IT Workshop

- Upon successful completion of PIP2IT beam tests, a workshop was held on May 6-7 with the goals to review and assess the beam run and technical systems performance; assess impact of test results and lessons learned on the final PIP-II designs and summarize required changes to address deficiencies and improve performance of PIP-II.





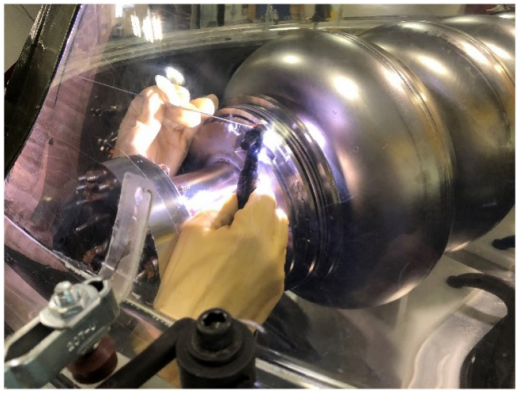


SRF/Cryogenics

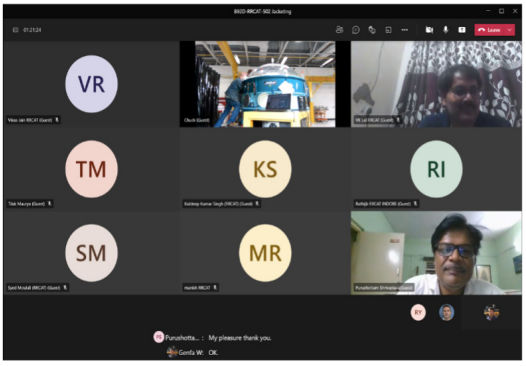
- Construction of the new MP9 SRF Clean Room is underway and progressing well.
- Completed dressing of RRCAT cavity #502 with RRCAT colleagues remotely participating.
- Vendor selection process for Niobium for the first SSR1 cryomodule is complete. This is a CD-3a long-lead procurement.

MP9 cleanroom walls

MP9 cleanroom rails installed, alignment underway



Jacketing of RRCAT cavity #502



RRCAT and Fermilab teams participate remotely in cavity jacketing

Conventional Facilities

- Cryogenic Plant Building construction continues with completion of under slab utilities and near completion of roof decking, building floor slabs and interior masonry wall construction. Aboveground utilities installation began in May.
- Linac Complex Final Design completed in April 2021. RFP documents were issued to FSO for review in mid May 2021.

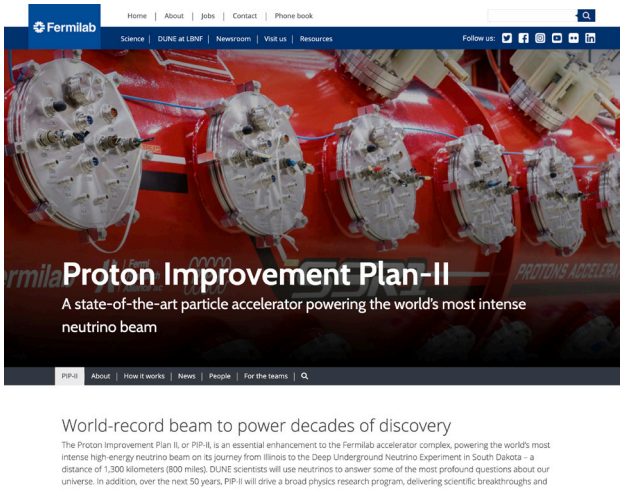
Cryogenic Plant Building: View from Wilson Hall, 31 May 21

Warm Compressor Station floor slab, 14 May 21

The building envelope was influenced by the science with the helium spectrum shown above the east elevation

PIP-II Launches Refreshed Website

- Fermilab launched a completely reworked and updated PIP-II web site: https://pip2.fnal.gov/
- Explore the vast research program, meet the international team, discover the components of the test facility, and much more: pip2.fnal.gov
- Same link, new, enhanced content!



World-record beam to power decades of discovery

The Proton Improvement Plan II, or PIP-II, is an essential enhancement to the Fermilab accelerator complex, powering the world's most intense high-energy neutrino beam on its journey from Illinois to the Deep Underground Neutrino Experiment in South Dakota – a distance of 1,300 kilometers (800 miles). DUNE scientists will use neutrinos to answer some of the most profound questions about our universe. In addition, over the next 50 years, PIP-II will drive a broad physics research program, delivering scientific breakthroughs and