

Date: January 17, 2019

To: Tom Nicol

Re: Proton Power Upgrade (PPU) Cryomodule Preliminary Design Review

I am pleased to invite you to travel to Jefferson Laboratory to review preliminary design of the PPU cryomodule. The review will begin the morning of February 27, 2019 and end midday on February 28, 2019. We value your expertise and welcome your input into making this a successful endeavor.

To coordinate travel arrangements, please contact Lois Brown (brownlc@ornl.gov) at (865) 574-9033. Ed Daly will serve as the host at Jefferson Laboratory.

As a product of the review, we request that the review committee produce a final report detailing the findings, comments, and recommendations. We would like to receive the report within 1 week of the conclusion of the review.

In following the charge, the committee should respond to the following questions:

1. Is the design of the cryomodules sufficiently mature to meet the standard for a Preliminary Design, >60% complete, and support readiness to proceed to Final Design, >90% complete, by the end of June 2019?
2. Have recommendations from previous reviews been addressed?
3. Does the cryomodule design support the project KPPs?

Proton beam power capability	2.8	MW
Proton beam kinetic energy	1.3	GeV
Beam pulse length	1	Ms
Pulse repetition rate	60	Hz
Average linac macropulse current	32-38	mA
Additional cavities/cryomodules	28/7	
Cavity accelerating gradient	16	MV/m

4. Are the CAD model, drawings, Statements of Work (SoW's), and Technical Specifications at a level commensurate with Preliminary Design?
5. Have the risks been properly identified and are mitigation plans adequate?
6. Are there unresolved issues that may have significant safety, quality, cost, schedule or performance impacts?

Recipient

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I thank you for giving your time and expertise in support of this important project.

Sincerely,

Matt Howell

PPU SCL Systems Manager