

Hall D JEF Meeting Minutes

Date: 02/21/2022

Time: 01:00 PM – 01:30 PM

Attendees: Mary Ann Antonioli, Arshak Asaturyan, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Mindy Leffel, Tyler Lemon, and Alexander Somov

1. ESR film pre-shaping

Mary Ann Antonioli, George Jacobs, and Mindy Leffel

1. 114 of 1600 completed (~7%) using 18 jigs (2 JEF, 16 NPS)
2. Two types of crystals—Chinese SICCAS and Czech CRYTUR; ~800 of each type will be used
3. Discussed concerns of different sizes of crystals and jigs in relationship to pre-shaped film
 - Acceptable to use both JEF and NPS jigs
 - All films are cut using JEF template, but because of jigs' size difference, some films may be loose around crystal once wrapped, which is not a problem
 - A 1 mm gap is acceptable, but no overlap
 - May decide to sort films by which jig was used for pre-shaping

2. Module fabrication

1. Reviewed crystal wrapping procedure
 - 18 ESR films delivered for wrapping by Sasha and Arshak
 - There is a spreadsheet for fabricated modules detailing crystal and PMT numbers
 - A template for cutting Tedlar is located in the TEDF building
 - Mindy Leffel and Sasha Somov will meet in TEDF in early March to walk through wrapping procedure
2. A spreadsheet of fabrication supply inventory (cut ESR films, pre-shaped films, cut Tedlar) will be made
3. Procedures for light guide preparation and attachment and module fabrication are located on the Hall D wiki page

3. Additional questions (see Appendix A)

Appendix A

Additional Questions

1. Is there a written procedure for module fabrication?
 - Yes, on the Hall D wiki page.
2. Will there be PMT divider PCBs?
 - Will use divider similar to NPS divider designed by Fernando Barbosa
3. Will there be high voltage *and* low voltage?
 - Yes, both high and low voltage will be used.
4. What kind of power supply will be used?
 - CAEN high voltage system will be used for high voltage and possibly an MPOD crate for low voltage.
5. How much radiation do you expect?
 - ~200–300 krad (closest to beamline); no crystal bleaching will be needed

Questions for Tim Whitlatch

1. Is there a procedure for crystal stacking?
2. Will there be dividers between rows and columns?
3. Is there a plan for a monitoring and interlock system in LabVIEW?
4. Is there a plan for an interlock system in EPICS?
5. For the water-cooled aluminum blocks, what kind of chiller(s) will be used?