

## SHUG-EC Conference Call: Tues. Feb. 11, 2020

Present at ORNL:

Adam, Eugene, Janell, Matthieu, Crystal, Ken, George

Online:

Olivier, Adrian, Martin, Jarek, William, Ally, Danielle, Daniel, Geneva, Dvora

Document approval:

- Minutes from Jan. 2020 conference call: approve
- Agenda for Feb. 2020 conference call: approve

### 1. SHUG-EC on-site meeting

- Dates: May 4 - 5, 2020
- We need to establish an agenda for this meeting. Crystal will work with us on the agenda.

### 2. NSD updates and associated discussion

- Both facilities are currently operating. SNS will shut down for a maintenance period on Feb. 19 and then restart on April 7. HFIR cycle 486 will finish on Feb. 24 and then the facility will shut down for a long 65-day outage before cycle 487 begins on April 28.
- A webinar will be presented on Feb. 12 before the 2020-B proposal deadline that will focus on instrument improvements at HFIR.

### 3. Data reduction and analysis update

- SANS data reduction backend is essentially done, but bugs have been found here and there.
- The SANS graphical user interface is also working, and bugs are being fixed as they are reported.
- Thiyaga is coming for a visit on Thursday to discuss SANS data reduction progress.
- Members of the Scientific Computing and Software Engineering have been moved to Jay's group in the Computing and Computational Sciences Directorate, but they will remain focused on NSD tasks and their physical office location at the SNS will not change.

### 4. Sample environment update

- The 14 T uncompensated, vertical field magnet for SNS has arrived and it is being tested now before it will be available in the user program. This instrument will first be run on CNCS and then HYSPEC. It should also be able to run on CORELLI, ARCS, and SEQUOIA. We are hoping that this magnet will be available for the 2021-A proposal call. There will be no tilting capability available immediately, but this will be investigated in the future.

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- A new 6 T vertical-field magnet for HFIR will arrive in March. This magnet will be a replacement for the widely used 5 T vertical field MAG-B.
- HFIR's beam room consists of an abundance of magnetic material and this prevents high-field vertical field magnets ( $H > 8$  T) from operating in this area. Higher field magnets can operate in the cold guide hall where the amount of magnetic material is not as restrictive.
- Soft matter SEs: one major concern is that there is no temperature control and sealed environments available for the rheometer. Several other concerns likely exist as well. Therefore, the SHUG-EC recommends a BlueJeans call with the soft matter sample environment steering committee, interested users, and some SHUG-EC members, including Dvora. On a related note, John Katsaras is now getting more involved with soft matter sample environments and he will serve as a primary point-of-contact in this area moving forward. Dvora pointed out that NIST has great soft matter sample environments and we should look to them for guidance.
- High-temperature SEs: one of Olivier's samples was vaporized in a furnace due to an equipment malfunction. Bekki Mills put together an action plan to address this issue and the work is ongoing. Olivier also lost some beamtime recently in a high-T CCR due to another equipment malfunction, but Gary did not know what happened and Bekki was not at our meeting. More TLC is needed with the high-temperature SEs to ensure that these issues don't keep coming up.

### 5. Ken Andersen introduction

- Neutron Technologies Division Director at ORNL; started very recently
- Spent the last month getting up to speed and learning more about ORNL
- Has no direct role in the STS project, but should be involved indirectly

### 6. STS December workshop update

- Good drafts received from the Soft Matter and Fundamental Physics chairs, but information still needed from all the others to help generate the workshop report. No deadline from DOE for this report, but it will be used to drive further concept development and help NScD to select the initial STS instruments.
- NScD is thinking about hosting an STS workshop summary webinar in March, but dates are TBD
- The STS first experiments document is now publicly available

### 7. Proof-of-Principle proposals and mail-in programs

- PoP proposals provide users with rapid beamline access for feasibility tests. No complex SEs allowed and proposals must be one day or less in duration. Can be submitted and approved at any time.
- 1/3 of previous PoP proposals had a PI with a non-ORNL affiliation, so some users are aware of this beamtime mechanism

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- Limited feedback about the importance of the PoP proposals has been received from the PIs, but there are certainly some known cases where they have been important
- Mail-in programs currently available for POWGEN and NOMAD. A pilot program is also available for some of the SANS instruments. There is ongoing discussion about expanding mail-in programs to other instruments, but no decisions have been made about how to proceed yet. NSD management has recognized that the availability of a sample changer and adequate beamline staffing are key requirements to implement a mail-in program on a beamline. VISION, ARCS, and SEQUOIA are all being considered for pilot mail-in programs.

### 8. SHUG-EC ACNS activities

- The SHUG-EC's potential ACNS activities should be discussed at our next conference call. Crystal will send Martin some information to help facilitate this discussion.

### 9. Next conference call: March 10, 2020, 4 PM