

SHUG EC Conference Call Minutes

June 1, 2015

Executive Committee members present: Souleymane Diallo, Claire White, Jen Niedziela (minutes), Morten Eskildsen, Yang Zhang, Brad O'Dell, Eugenia Kharlampieva, Boris Khaykovich, Brad Lokitz, Yang Ren

Other Neutron Sciences Directorate staff present: Thomas Proffen (Neutron Data Analysis and Visualization Division (NDAV) Director), Stephen Nagler (Quantum Condensed Matter Division (QCMD) Director), Rob McQueeney (Deputy Associate Lab Director for Neutron Sciences), Laura Morris Edwards (User Office), Richard Ibberson (Chemical and Engineering Materials Division (CEMD) Director), Volker Urban (Biology and Soft Matter Division (BSMD) Director).

Next scheduled meeting: **WEDNESDAY** July 8th, 2015, 11 AM

1) Previous minutes and agenda: No comments or corrections to the minutes. Claire moved to approve, and seconded by others. No additions to current agenda.

2) Updates from NScD management:

a) McQueeney

- i) Busy month – SRC meeting & BAC – all proposals and approvals sorted and sent;
- ii) Workshops; Neutron Spin Echo (NSE); Cold Triple Axis (CTAX); Corelli/Diffuse Scattering
- iii) Neutron Advisory Board (NAB) Meeting onsite – Overview of activities at the SNS/HFIR presented, meeting went well; Some useful feedback from NAB, still awaiting a final report. Claire – did they have any suggestions? Rob: discussion on targets, better communication with users needed. STS workshop encouraged. Want to emphasize that “Neutrons 2025” is not just STS; need to include HFIR/SNS, communicating a total vision for the sources. Workshop in October should include more of a total vision for the three sources; Richard: Positive feedback, emphasized that there was a more strategic vision presented, as opposed to a “response mode”. Rob: Report would be available soon. Claire: can we see that report? Steve: internal advisory board; reports are generally not made public. Rob: Some discussion that the NAB is interested in what the user's think; maybe the SHUG chair should come along on the next event; Claire: seems a lot of double counting/communicating; communicating between different entities is important.
- iv) US-Japan collaboration meeting; US-Japan agreement supports two instruments at HFIR; spin echo and CTAX workshops motivated by the interaction, increase synergy between cold neutron instrumentation at SNS and HFIR.
- v) SNS beam power hovering between 1.0 and 1.1 MW. HFIR starting up soon.
- vi) Volker Urban:
 - (1) Dispersions of SWCNT; of interest for nanocomposites, difficult to disperse; can use polymers to change surface properties.
- vii) Richard Ibberson:
 - (1) Technical developments on SNAP; cool down DAC in 7 hours at 2-94 GPa.
 - (2) VULCAN – LDRD program of Ke An; looking at potential for using 3He Linear Position Sensitive Detectors (LPSD) at VULCAN. Wavelength shifting fiber (WLSF, current detector technology at VULCAN and POWGEN) presents a great deal of variability in terms of efficiency that is absent in LPSD; current WLSF

could be shifted to POWGEN as part of POWGEN upgrade if LPSD can be procured for VULCAN.

- (3) Mail-in program at NOMAD in conjunction with APS program - Local distortions in ferrite nanoparticles; partnership with APS 11-IDB. Bulk domain/ferrimagnet behavior, wind up with single domain ferromagnets at less than 80 nm; applications in MRI, drug delivery systems. Get rid of structural distortions by doping; can actually prepare materials at lower temperatures.

viii) Steve Nagler;

- (1) Measurements of magnetic excitations on CeRhIn₅; distinction between itinerant and local magnetic interactions; coupled with theory, published in Physical Review Letters.
- (2) Workshop on Corelli – just now entering user program; looks like it will be successful; lots of room for user input.
- (3) MANTA – potential CTAX on CG1, complimentary with cold neutron efforts at SNS. Lots of interest from international collaborators and US Universities.

ix) Laura;

- (1) 608 Unique SNS/338 HFIR; HFIR starts up on Tuesday.
- (2) Neutron Scattering School at APS/SNS at the end of June;
- (3) By the end of June, should be close to 700 unique users for FY15. Goal 780
- (4) 120 Instrument publications, 16 High Impact;
- (5) SRC in; 850 proposals reviewed;
- (6) Subscription rate coming back to factor of 3; 300% about normal when running normally; 500% for some instruments; alternates chosen carefully with diversity and science in mind.

b) Action items from last meeting:

i) Posting of on-site meeting recommendations?

- (1) As the SHUG is an advocacy group for the users, it is important that the recommendations be transparent. Rob will review the recommendations and have a written response that will be public.
- (2) Boris: during user meeting, have presentation about the on-site; Claire – two years ago, there was a sessions dedicated to SHUG to have a dialogue with the users to update them on recent activities of SHUG, recommend the user meeting have a similar session about the SHUG, and touch on the on-site discussions.

c) Status of the SHUG EC recommendations:

i) Rob; recommendations taken; most are being dealt with in some way; some need direct response; will work through the actions in the next month; some co-aligned progress with the triennial review; sample environment/science-based approach to sample environment underway; putting on paper and formulating a response; Boris: Recommend there be a formal response to the recommendations; Claire: update for next newsletter in a positive fashion the outcomes from the on-site and the recommendations – shows there is movement forward. Can touch base to reinforce that things are going in the right direction. Revisit at next meeting.

d) Meeting updates:

i) Morten: On-site for STS:

- (1) Boris & Morten on site ~2 weeks ago; had productive meetings with Alan and Rob, going through STS part of user meeting. How much time to spend on it, what is structure, who to help organize? Draft schedule of the user meeting and STS workshop distributed to the SHUG EC – The STS meeting to consist largely of breakout sessions on focused topics. Have 2 days for user meeting, 1.5 days

for STS. Claire to form a task force to organize things for the user meeting; Yang Zhang and Yang Ren to assist.

(2) Rough schedule for user meeting:

- (a) Day 1 – General SHUG user meeting all day.
- (b) Day 2 of user meeting – general SHUG user meeting in the morning, afternoon sessions to be summary of grand challenges workshop/instrument concepts; names have been circulated for the distribution of the grand challenges statements (in the proposed schedule document). Final selection of the program to be done by done by advisory committee (group selected to drive the program of the STS workshop); Nagler: suggestion: be careful calling them advisory committee rather than a program committee; Boris: sure – we will call them the program committee.
- (c) Day 3 – STS workshop - breakout sessions, with well-defined charge; break up into morning and afternoon between different topics.
- (d) Day 4 – wrap up and finalize reports.
- (e) STS workshop to be organized by Boris and Morten; drafted a letter to send to Program committee candidates; candidates identified (p. 5&6 of the draft schedule document) **if additional names are suggested, please email Boris/Morten with name and contact information.**
 - (i) Questions: Claire: what demographic are you looking for? Morten/Boris: Established, but not very senior; want the researcher to still be active when STS comes online. Need to figure out exactly how breakout sessions will be organized, need people with good understanding of overall field. Want people who's careers might be defined by the STS.

(3) Need to identify schedule; week of 10/26 was optimal.

- (a) Eugenia giving invited seminar at Oberlin on 10/29. Claire on midterm exams last week of October; MRS meeting near Thanksgiving.
- (b) Schedule – 3.5 days, where does it go in the week? M-Thurs.
 - (i) Claire makes motion to hold the meeting starting 10/26-Thurs., seconded by Morten; few days to object;
 - (ii) Claire makes motion to make the 3.5 day schedule.
 - (iii) **The dates of the SHUG user meeting and STS workshop will be 10/26-10/29.**

(4) Is the STS workshop by invitation only? Morten: want to have user input on the STS; There will be a number of attendees directly invited to ensure their participation, but are reluctant to exclude anyone up front; Claire – seconded;

- (a) Boris: having a breakout session with more than 10 people will make them less productive. Claire: how many neutron users attended last meeting? Laura: ~200 people attended, ~100 neutron users from the last meeting; Rob: requesting that people hang on and go to both meetings, need to understand how the logistics will be handled. Claire: keep it open; Morten: can't exclude everyone, but can't support everyone; Alan: will need a limit on the number of attendees due to space constraints; Claire: Registration: first come-first serve.

(5) Morten: Charge needs some discussion and work; the draft schedule for the User meeting/STS workshop contains a schedule for accomplishing the ancillary tasks.

e) Coffee breaks:

- i) Important information from coffee breaks; 20-30 per meeting, ~50 unique attendees; comments from users reflect what SHUG is paying attention to.

- ii) Continued discussion point for the meetings; things that are being continually discussed that aren't coming up should be highlighted.
- f) Beamline scientist award:
 - i) Eugenia to discuss with Laura,
 - ii) Scientists that have made a large impact should have some recognition; funding still pending.
 - iii) APS model is a guide; **Claire to send info to Eugenia.**

Meeting ended – next meeting July 8th. Follow on discussion about the STS workshop continued with ORNL attendees, Boris and Morten.