

## **February 8, 2006 SHUG Executive Committee Conference Call:**

Members Present (6):

Despina Louca  
Mark Lumsden  
Mike Snow  
Leonard Spicer  
Angus Wilkinson  
Igor Zaliznyak

Also present at conference call:

Ian Anderson  
Al Ekkebus  
Steve Nagler  
Greg Smith

### **1. Update on SNS and HFIR Status**

#### **Ian Anderson: update on the current status of SNS**

The accelerator has been commissioned and is running up to its full energy of 927 MeV. A beam has been put in the accumulator ring up to full intensity and the ring is now commissioned and working well.

The Hg target loop is working well and is ready to take beam. The remote handling has been tested – the target can be taken off by remote handling and reassembled.

The backscattering spectrometer and 2 reflectometers are nearly finished and are planned for completion by March.

Construction needs to be completed on the line between the accumulator ring and the target.

SNS needs to go through a final readiness review of the accelerator and target facilities at the beginning of April. If this is successful, they will have beam on target during April.

There will be an instrument readiness review for the backscattering spectrometer on March 24<sup>th</sup> and the review for the 2 reflectometers in April/May.

There should be a preliminary call for initial users in the fall of this year.

The schedule has a slow build-up to full power by the end of FY-08.

Q. How does the FY-06 BES budget affect SNS? The operating budget is \$1M short of the request which will mostly affect the number of spares that can be procured. For instance, there are very few spares for the target.

**Comment [11]:** Following the announcement of the ACI the full operations budget has been restored.

Q. What is the risk of these budget cuts and the lack of spares affecting the goal of full power by FY-08? The risk is fairly low as the high risk items are being worked on.

The FY-07 president's budget looks very good and includes the SING2 project which would result in 4-5 new instruments.

Q. The plan is to have a call for proposals in the fall, what power level is anticipated for this time? The hope is for 50-100kW. The April readiness review will set the accelerator safety envelope; currently 100kW is the goal. Any users coming at this early time should have some expectation of problems as this is the commissioning period.

In 1 year from now, the plan is for SNS to reach ISIS power levels.

Q. What is the order of instrument installation after the initial 3? The current order is SANS, POWGEN3, ARCS, CNCS, (may be slightly delayed due to the switch from Penn. State to SNS), VULCAN, SNAP, followed by the rest of the SING instruments and the Spin Echo instrument.

#### **Steve Nagler: Update on current status of HFIR**

The HFIR facility is focused on the installation of the cold source.

The current plan is to have an operational cold source by October 2006 and things are currently on schedule.

The HB4 beam tube (which will house the cold source) has been delivered to ORNL and will be installed in the next week.

The instrument guides are installed and 3 of 4 have been vacuum tested.

The 2 SANS detector tanks have been installed.

The cold source will need to be installed, tested and put through a readiness review before it can begin Hydrogen operation.

Cooling is required in the cold source to run the reactor due to heating of the beam tube.

An artificial heat source will be used to simulate the heating expected from the reactor and this will be used to test operations with first Helium in the cold source and later Hydrogen.

It will be possible to run the reactor with Helium gas as a coolant and the plan is to run the reactor while the readiness review of the cold source is taking place.

The current schedule has heat testing with Helium as the coolant in May followed by a reactor cycle in June or July.

All of RRD (Reactor Research Division) is focused on the cold source project.

Users: during FY-05 there were 96 individual users on 5 instruments (3 triple-axis instruments, one reflectometer, and one residual stress). Of these 96, 40 were first time users. For reference these are the number of users who actually attended the experiments. Of those, roughly 15 were on the reflectometer. The latest cycle, in December, had 30 unique users.

Q. Of these users, how many were external? Approximately 75 were external.

The reactor cycle in June/July will be a construction cycle for the cold source. This will be followed by another cycle which will be a steady operation cycle. We will probably catch up on existing user proposals during these cycles.

The current plan calls for 1-2 cycles after the cold source is installed in the fall (Oct./Nov. time frame).

There will likely be a call for proposals in the fall which will cover calendar year 2007 and this call will include the SANS instruments.

The plan for 2007 is to have several back-to-back cycles with short gaps between them.

Of the 23 unscheduled shutdowns in the recent past, 21 were due to DOE bureaucracy. Kelly Beierschmitt (current Executive Director of HFIR) got approval recently to run in a fashion similar to NRC (which allows the reactor to operate while procedural issues are being resolved if it is safe to do so). This agreement with DOE was tested this past cycle and it worked well. Hopefully, this will help in making HFIR more reliable.

CNS (Center for Neutron Scattering) is having a major program review in May (which was moved forward from the initial fall estimate). This is an opportunity for CNS as DOE has been more supportive of late given the cold source progress.

CNS will need help from users during this review primarily in helping with the science overview for those who did science here.

Q. Who is making the cold source? It is subcontracted to a nuclear certified company and is already built and on-site.

Q. Has any consideration been given to putting a temporary instrument on CG1 until funding is in place for the cold triple-axis? It was considered but there isn't sufficient money or manpower to do this.

Q. What is the time frame for CG1? The upcoming review is very important and users need to express to DOE the need for this instrument. Currently, we don't have a budget for this instrument so it's impossible to put a time frame on instrument completion.

With BES reviews of user facilities, user surveys are important. SHUG should drive these surveys to avoid conflicts of interest.

We could use an online survey tool like "Survey Monkey". It is certainly convenient to set up a web-based survey.

It was mentioned that this could be part of updating our web site. However, it was pointed out that it shouldn't be through the SHUG web site as this uses federal resources.

**[Action Item]** In terms of having a survey before the May review, it would need to be directed at a limited set of users. HFIR should send this list to SHUG and let SHUG do the survey of this limited set.

Q. What kind of information should we include on the survey? This depends on what DOE asks for from the review. **[Action Item]** The CNS User Office has a survey that can be forwarded to SHUG and used as a starting point for this survey. In addition, the list of users will be sent.

CNS will be asking users for experiment summaries and we may want a SHUG presence during the review. More should be known about the review in the next couple of weeks.

One major aim during this review is that HFIR should have a realistic support level for instruments. The SNS goal is to have 6 FTEs per instrument. HFIR is currently at 2 FTEs per instrument and this clearly needs to change to be able to adequately support the instruments in the user program.

It would also be useful to determine if there is enthusiasm in the user community for building new instruments (and which types)

We should keep the number of questions small to get participation up. Clearly, a set of options is much better than free form responses. This also allows you to increase the number of questions.

The survey has to be designed to get information on the core issues without substantial typing on behalf of the user.

The User Office will send information to SHUG and once CNS knows what DOE expects from this review, we can determine what's reasonable.

Based on preceding discussion, it is clear that there needs to be a regular survey process run by SHUG.

There are 2 issues here:

1. The upcoming May CNS review
2. Longer term, SHUG should facilitate obtaining feedback from users. This should be part of the mission of SHUG – to obtain this information from users such that the surveys are not biased by the facilities.

### **Al Ekkebus: Update on Housing Facilities**

As a reminder, the first users will be arriving in [fall](#) of this year.

There is a group looking into housing options. This group has visited JLAB and SLAC to examine their housing facilities.

ORNL/UT Business people are putting together a plan where the cost is limited to be less than \$5M.

A questionnaire is being put together to find out what users want in onsite housing.

The current plan is for construction to start in April 2007 with completion in July 2008.

The Argonne Guest House cost about \$30M.

For SNS, it is expected that the typical stay for a user will be 3-7 days.

Q. What about housing like that at PSI? The hope is that we can have something better than that.

PNNL built a new housing facility recently.

Current discussions are considering that the SNS housing will be ORNL funded with operations contracted to local educational institutions

Q. What type of model in mind? Hotel/dorm/both? The model is a hotel model with a range and mix of rooms to be determined by the survey.

No decisions will be made until we have the survey results. The survey will go to a broad range of people to get a range of responses.

SHUG input is welcome in the housing discussion.

### **2. Next SHUG User Meeting**

SHUG is satisfied with the current plan in terms of divisions of responsibilities.

SHUG needs to establish a subcommittee to work on the program for the User Meeting. SNS and HFIR User Offices can provide all the local support that was provided at the last user meeting.

The big thing for SHUG is to coordinate the program of the meeting – determining topics, inviting speakers, etc.

**[Action Item]** Al will send a summary of the recent facility manager meeting. Al asks that we keep this summary reasonably confidential – please don't distribute widely.

### 3. Session at ACNS / Lobbying Efforts

SHUG has reserved a session at ACNS (June). We need to decide what we'd like to do during that session.

One possibility is an open discussion session about SNS/HFIR including issues such as user policies, proposals, etc.

We should coordinate this session with people from SNS/HFIR (i.e. Ian/Steve)

**[Action Item]** We should email suggestions around to get some ideas.

The idea of writing lobbying letters at ACNS was mentioned with the idea being something like the APS March Meeting where they have letter writing campaigns. There is already going to be a component of this at the meeting.

There is a trip to Washington on April 9-11 with representatives from the User Groups. SNS is sending material for a briefing package.

There are several lobbying efforts coming up in the near future.

Based on past experience, we should expect less than a 10% response from these lobbying campaigns.

It's important to emphasize that every response counts.

Very often, a local Congressman/Senator may never hear that certain issues are important. Because of this, small responses are very important.

It is also important to ask for funding increases in general and not for a specific facility.

It is important to do this as part of a bigger group (SNUG). SNUG was formed purely for lobbying purposes – its sole purpose is to stay on top of funding issues and to advocate for resources.

SNUG effort is done in coordination with APS who provides all information and a web-based structure for letter writing campaigns.

In addition to SNUG, there is also NUFO (National User Facility Organization). This is a broader group that includes particle physics. They have a meeting coming up in the near future with topics of discussion that include safety and user training (commonality, avoiding retraining, etc.). **[Action Item]** Despina has a conflict for this meeting and we will need someone else to attend – volunteers should email Despina