

September 1, 2011

To: Users of TRIUMF's Subatomic Physics Facilities
TRIUMF Subatomic Experiments Evaluation Committee Meeting

From: Reiner Kruecken, Science Division Head

Dear TRIUMF Users,

A) Implementation of a new SAP-EEC experiment categorization scheme

I am contacting you to inform you of a new system that TRIUMF will implement for the subatomic physics program at TRIUMF.

The current experiment management system includes active (stage 2) proposals with approved shifts, pending (stage 1) proposals as well as deferred and rejected proposals. In my view the current system is lacking a certain amount of transparency in what the backlog of the facility really is, what holds different stage 1 proposals back to become raised to stage 2, and how proposed experiments feed into the plans of the facility, in particular ISAC, for beam developments. Following discussions with the SAP-EEC in July 2011 TRIUMF will implement a new scheme for the classification of experimental proposals, starting December 2011.

In the new system it will be possible to submit either Proposals or Letters of Intent, which are explained in more detail hereafter.

As a consequence of this change to the experimental management system for SAP, the EEC will review all pending (stage 1) and deferred proposals as well as those stage 2 proposals that have not been run in the last 2 years in a meeting on December 12 & 13, 2011. Please see the call for submissions of status reports in part B) of this message.

It is the aim to only approve those proposals that have sufficiently high scientific merit AND have a realistic chance, based on the readiness of beams and experimental facilities, to run within two years of approval. For the approved proposals a number of shifts will be allocated. The SAP-EEC will receive guidance from TRIUMF management as to how many shifts can be approved in each EEC meeting.

In order to be able to develop and maintain a clear and transparent plan for beam developments at ISAC and to enable experimental collaborations to gain support from TRIUMF for technical developments and funding requests we will use Letters of Intent. Endorsed LOIs will thus set the priorities for beam development, and this will be communicated to the users, which will make the whole system more transparent.

Please read through the following information on the new system carefully and please do not hesitate to direct any questions regarding this new system at any time to me.

Proposal:

- Proponents ask for allocation of a number of shifts for a clear scientific case on the basis of the best estimate of achievable beam intensities.
- Beam should be expected with reasonable certainty to be available within 2 years, i.e. no major new developments needed.
- Technically the experiment should be convincingly mature to successfully run. New equipment should have been successfully commissioned. If it uses only well-established standard technologies an explicit commissioning may not be needed.
- EEC will review proposals and either
 - o **approve** with **high or medium priority** and allocate a certain number of shifts (please note that the medium-high category will be abandoned)
 - o **not approve** if deemed technically unfeasible, if the scientific case has not sufficient merit, or if beam time is limited and the scientific case is less compelling than that of other proposals submitted
 - o **defer** if the EEC feels that the information presented is not sufficient or the EEC feels it has not sufficient expertise to judge the case and as a result recommends that an external expert review is conducted.
- **After 2 years** the proponents must submit a status report if they have not run the experiment and the proposal expires unless the EEC sees a special reason to keep it active.

Letter of Intent (LoI):

- Describes the intent to carry out a certain experiment or scientific program for which a substantial extension of the facility capabilities is needed. These extensions include
 - o development of certain beams with sufficient intensities and purities
 - o new experimental capabilities, such as major new equipment or new techniques.
- LoIs should provide an estimate of the amount of beam time necessary to carry out this program. In particular for long term programs that would require large amounts of beam time it is important for TRIUMF and the EEC to be aware of such needs.
- The EEC evaluates the scientific and technical merit and judges - with input from the facility - the general feasibility of the proposed research, explicitly taking into account the approximate amount of beam time required.
- For experimental or beam production facility upgrades that have a significant impact on TRIUMF either during the upgrade or in subsequent operation a Project Charter Sheet should be submitted. The LoI and EEC report would be part of the input to the Gate Review process.
- The EEC may
 - o **endorse the LoI with high or medium priority**
 - o **not endorse** the LoI deemed technically unfeasible or if the scientific case has not sufficient merit.

- The endorsement of a Lol signals that
 - o the EEC and TRIUMF support the general experimental program proposed and expects that competitive proposals for this program will be submitted on the timeline presented in the Lol
 - o any beam development needs for the proposed program will be entered into the beam development plan (see below)
 - o the proponents are encouraged to seek funding for and complete any planned technical developments
 - o the proponents are expected to submit proposals for experimental shifts once readiness of beam(s) and experimental equipment has been established.
- Please note that the endorsement of a Lol does not guarantee the acceptance of proposals based on the developments proposed in the Lol but these proposals will be judged on their scientific merit at the time of submission and in comparison to other submissions.
- **TRIUMF management will communicate the support for an endorsed Lol to NSERC and other funding agencies, as required.**
- Once Lols have been reviewed there is no follow-up directly related to the Lol. New proposals related to the Lol will individually obtain experiment numbers that are not connected to the Lol. Reference to the Lol can and should be made in the proposals where appropriate.

RIB beam developments:

Through the priority assignment by the EEC, proposals and letters of intent will feed into the priorities for RIB beam developments, which are summarized in the Beam Development Plan. The Beam Development Plan will be a living document that will be updated regularly taking into account new developments and EEC recommendations.

For the December 2011 SAP-EEC the Beam Priorities Committee will review all current active and pending proposals and assess the beam development needs as well as a possible timeline for the needed development based on the technical work required.

This information will feed into the development of a **Beam Development Plan** based on

- the EEC recommendations for approved proposals and endorsed Lols
- the technical difficulties associated with the developments
- a mid-term strategy for the development of new target materials, ion sources, purification methods, etc.

Starting with the December 2011 SAP-EEC the Beam Priorities Committee will report to the SAP-EEC and the Science Division Head at the SAP-EEC meetings on the achievements of the beam developments. The success of developments will be measured against the beam development plan. Reports on beam developments will also be given to the TUG at their AGM.

RIB beam developments and yield measurements will be performed on the basis of plans agreed upon by the Beam Priorities Committee. Written reports on the measured yields will be

submitted to the chair of the Beam Priorities Committee. The measured yields will be posted in the ISAC yield database.

The Beam Development Plan will be published online and updated regularly, at least after every SAP-EEC to include the new EEC recommendations.

Data Taking and Analysis:

Also, please take note of the actions to be taken after the experiment has been carried out.

- After running the experiment the spokesperson
 - o has to submit a status report within 60 days of taking data
 - o is asked to fill in a questionnaire with regard to their satisfaction (the questionnaire is currently under development)
 - o is asked to report any publications, including thesis, to TRIUMF (Science Division Administrative Assistant).
- If the beam time was insufficient to achieve the experimental goal the proponents may submit an addendum to the EEC.

B) Call for submission of status reports for deferred proposals, pending (stage 1) proposals, and stage 2 proposals that have not been run in last 24 months

As a consequence of the above change to the experimental management system for SAP, the EEC will review all pending (stage 1) and deferred proposals as well as those stage 2 proposals that have not been run in the last 2 years in a meeting on December 12 & 13, 2011. **No new submissions will be accepted for this EEC meeting and no oral presentations will be given.**

I would like to ask all **spokespersons** of deferred proposals, pending (stage 1) proposals, and stage 2 proposals that have not been run in last 24 months to submit by October 12, 2011 17:00, Vancouver time a status report on their experiment using the online system.

Please follow the detailed guidelines given below for the submission of these status reports after reading this message completely and carefully.

I would also like to ask **collaborations** with several experiments in the above categories to provide me with a summary of their planning for the various proposals and, if necessary, an update on the spokesperson information.

In preparing your status report please follow the guidelines below:

In the online forms:

- Make sure to correctly indicate the experimental area for your experiment (Meson Hall/ISAC) and the experimental facility.
- Make sure to fill-in the details on beam species and required intensities in the online form, DO NOT simply refer to the main text or previous submissions.

In the detailed statement (see attached template):

- Please indicate in the beginning of your report if your submission should be considered as **proposal** or **letter of intent** in the new system taking into account the descriptions of the two categories above.
- Update the physics case of your submission addressing if carrying out the proposed experiment is still of current interest.
- Please explain the reason why the experiment has not obtained stage 2 approval so far.
- For proposals provide an updated estimate of the number of shifts needed (including details on how this estimate was obtained) the technical readiness and the prospective and actual readiness of the requested beam(s).
- For Letters of Intent please indicate the steps necessary to achieve readiness for a proposal including technical developments, beam developments. Also include an overall estimate of the amount of beam time the proposed program would require.