## Guidelines for Proposals

**GENERAL CONSIDERATIONS:**

1. Be careful to submit a complete package that can stand alone. Do not assume that the PAC is aware of information contained in previous proposals, technical notes, and letters of intent. If this information is important background for your proposal, be sure that you include it in the proposal, for example as an appendix.

2. Discuss any equipment requirements beyond the standard set of equipment already available in the relevant experimental hall (see “Base Equipment” below). Also indicate the resources required to supply and install this additional equipment, and the associated responsible parties. If the proposal requires construction of new experimental equipment additional material must be submitted, as detailed below under " New Experimental Equipment."

3. Give justification for the uncertainty of the final results. Give realistic estimates of uncertainties in resolution, absolute momentum and angle calibrations, random coincidences rates, etc. and indicate how these impact the final results.

4. Be sure to include a detailed table showing how you calculated the number of days requested. Since run time is a very scarce resource, the PAC reviews very carefully the details of the request, makes its own calculation, and allocates the time accordingly. Therefore it is essential to give a full and detailed justification of your request.

5. Include experimental details and simulations. Complex and challenging experiments often require extensive justification and simulation calculations. Discussions of yield, backgrounds, accidentals, and projected statistical and systematic errors, are essential elements in the justification. To support these, it is important to give the results of simulation calculations that should be the basis of the experimental design. This is an essential component of the package required in order to get such proposals approved.

6. Indicate how the project relates to other approved 12 GeV proposals. Failure to pay sufficient attention to this charge can result in the PAC not considering the new proposal until the information is provided.

## Identification of Experiments with Similar Physics Goals

On your proposal cover sheet you must identify any existing approved, conditionally approved, or deferred proposals or experiments that have physics goals similar to those in your proposal. In the text of your proposal, compare and contrast your proposal with these proposals and experiments already considered or under consideration by previous PACs. The full text for previous proposals is available on-line at http://www.jlab.org/exp_prog/experiments/. PAC reports can be found on line at: http://www.jlab.org/exp_prog/PACpage/pac.html.

The spokespersons for the relevant existing experiments and proposals you have listed on your proposal cover sheet will receive copies of your proposal prior to the PAC meeting. They will be allowed to submit written comments that will then be passed on to the PAC with a copy provided to you. If you fail to identify a previously approved proposal with similar physics goals, the spokesperson for the previously approved proposal may request that final approval of your proposal be contingent on review by a subsequent PAC of the issues they want raised. If laboratory management agrees that the request has merit, the final approval of your proposal will be deferred until the following PAC has reviewed the situation.

## Beam Time

The beam time request should be provided in some detail using the standard forms identified below. Do not request any contingency time as the scheduling process includes this time. The beam requirements and time request should include all of the time needed, assuming 100% efficiency, for the following activities: setup & installation; alignment; calibration; check out and testing without beam; commissioning with beam; physics measurements (list all currents, energies, and targets); target and experimental apparatus configuration changes, including [for Halls A and C] spectrometer angle changes; and decommissioning. Requirements related to the beam polarization should be part of the beam request. This is especially important if there are stringent limitations on the maximum tolerable component of the polarization transverse or perpendicular to the beam direction. This may be especially relevant for experiments that measure small parity violating asymmetries.

## Base Equipment

Note that the guidelines above apply to proposals that will use the "base equipment" of the 12 GeV Upgrade project; this includes all devices included explicitly in the 12 GeV Upgrade Project Design Solution Documents (DSDs) which can be found on the JLab 12 GeV Technical Scope webpage (http://www.jlab.org/12GeV/index.html#DSD). This "category" of proposals may also include use of existing ancillary equipment. If you have questions about whether your proposal for this PAC should be considered under these guidelines above or the " New Experimental Equipment" guidelines below, please contact Rolf Ent (ent@jlab.org) and/or Bob McKeown at bmck@jlab.org.

## New Experimental Equipment

Proposals that will require new experimental equipment **must** include additional information. It is essential that the proposers understand that a positive recommendation from the PAC about the scientific merits of such a proposal will only be the first step toward a final decision about their execution. Subsequent steps will likely include detailed technical reviews, the development of funding to support the construction, and the establishment of a "project" framework for its construction and installation.

The proposing scientists and institutions must state clearly their intention to participate in and contribute to the construction of the new apparatus. Each new proposal of this type must include the following items:

- From each group of proposing scientists and institutions:
    - a clear statement of their intention to contribute to the construction of the new equipment
    - a summary of the responsibilities they will undertake as part of the construction effort, and
    - the identification of financial and human resources now available to them in support of the effort, and
    - a strategy to obtain the resources necessary to cover the entire construction and installation effort.

The proposal must also include summary statements identifying the resources that will be requested from JLab as part of the construction effort.

## Run Group Proposals

New run group proposals (i.e., those requesting new beamtime) are defined as collections of proposed experiments that use common beam time and experimental equipment. Proposals for complete run groups should be submitted at one PAC meeting, where all of the anticipated physics associated with the proposed run group will be considered. Each run group can submit up to 4 individual proposals (up to 3 physics topics plus 1 summary of additional topics) and will be granted a maximum of 4 presentations corresponding to these proposals. The PAC may consider each of these for grading, but will attempt to provide a common assessment of the whole run group.

## Additions to Previously Approved Run Groups

New experimental proposals that do not require additional experimental equipment and that run (even partially) in parallel with previously approved run groups should be considered internally by the proposing collaboration. Run group additions that require changes or additional equipment need to be submitted as full stand-alone proposals. Exceptions that require only minor changes or additions to the experimental equipment need to be discussed with the Associate Director for Experimental Nuclear Physics before submission to the PAC as run group additions. It is also requested that documentation (e.g., proposal and report) from the internal collaboration review be submitted to the PAC for their information. A collaboration representative will have the opportunity to report on these additional parallel running proposals to the PAC, and the PAC will then provide comments on them in its report.

## Letters-of-Intent

Letters-of-intent may be submitted to solicit the evaluation by the PAC of a new line of research before investing the large effort required to prepare a full proposal. Letters-of-intent will be made public after receiving PAC appraisal in the same manner as full proposals. If the PAC recommends strong encouragement for the letter-of-intent, we will treat such letters of intent in a

manner similar to how we have traditionally treated deferred proposals submitted to the PAC. That means that these letters-of-intent must be resubmitted within two successive PAC meetings as a full proposal PAC. The proposal must address the issues and concerns raised by the PAC. And finally, the LOI has established a claim to a physics measurement that lasts (as is the case for conditionally approved proposals) for the next two successive PAC meetings.

## Procedure for submission

The deadline for submission of proposals and updates is 8:00 a.m. EDT (Eastern Daylight Time) on Monday, June 6, 2016. All submissions should be submitted electronically at http://www.jlab.org/exp_prog/PACpage/instructions.html.

If you experience difficulties, please contact Susan Brown at sbrown@jlab.org.